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SUPREME COURT. U. S.

# TRANSCRIPT OF RECORD

## Supreme Court of the United States

**OCTOBER TERM, 1959**

## No. 86

HURON PORTLAND CEMENT COMPANY, ETC., APPELLANT,

*vs.*

CITY OF DETROIT, ETC., ET AL.

APPEAL FROM THE SUPREME COURT OF THE STATE OF MICHIGAN

**FILED JUNE 1, 1959**
**PROBABLE JURISDICTION NOTED OCTOBER 12, 1959**

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## INDEX


| | Original | Print |
|---|---|---|
| Record from the Circuit Court for the County of Wayne, State of Michigan In Chancery | | |
| Notice of appeal to the Supreme Court of the United States | 2 | 1 |
| Bill of complaint | 5 | 3 |
| Answer of the City of Detroit, a Municipal Corporation, et al. | 13 | 8 |
| Pre-trial statement | 18 | 12 |
| Appearances | 18 | 12 |
| Transcript of testimony | 21 | 14 |
| Appearances | 21 | 14 |
| Testimony of Joseph F. Stenglein—direct | 22 | 14 |
| Opinion, Bowles, J. | 25 | 16 |
| Decree and order dismissing bill of complaint | 40 | 27 |
| Proceedings in Supreme Court of the State of Michigan | 41 | 28 |
| Opinion, Voelker, J. | 41 | 28 |
| Decree | 49 | 35 |


RECORD PRESS, PRINTERS, NEW YORK, N. Y., DECEMBER 14, 1959

| | Original | Print |
|---|---|---|
| Record from the Circuit Court for the County of Wayne, State of Michigan In Chancery | 51 | 36 |
| Cross-designation by appellees of additional matters to be included in record | 51 | 36 |
| Plaintiff's Exhibit 5—Official Smoke Abatement Code of the City of Detroit, Ordinance No. 167-E as amended to October 16, 1947 | 53 | 37 |
| Plaintiff's Exhibit 2—Certificate of inspection issued by the United States Coast Guard covering the vessel S. T. Crapo | 54 | 38 |
| Plaintiff's Exhibit A—Consolidated certificate of enrollment and license | 56 | 43 |
| Clerk's certificate (omitted in printing) | 59 | 44 |
| Order noting probable jurisdiction | 60 | 44 |

[fol. 1] [File endorsement omitted]

[fol. 2]

State of Michigan
In the Circuit Court for the County of Wayne
In Chancery
No. 544-318

Huron Portland Cement Company,
a Michigan corporation, Appellant

v.

City of Detroit, a Michigan municipal corporation, Benjamin Linsky, Chief, Bureau of Smoke Abatement; P. J. Lareau, Appellees

## Notice of Appeal to the Supreme Court of the United States—Filed April 9, 1959

I. Notice is hereby given that Huron Portland Cement Company, a Michigan corporation, the appellant above named, hereby appeals to the Supreme Court of the United States from the final decree of the Supreme Court of the State of Michigan affirming the decree of the Circuit Court for the County of Wayne, In Chancery, entered in this action on January 12, 1959.

This appeal is taken pursuant to 28 U.S.C.A., Section 1257 (2).

II. The clerk will please prepare a transcript of the record in this cause for transmission to the Clerk of the Supreme Court of the United States, and include in said transcript the following:

1. Bill of complaint
2. Answer
3. Pre-trial statement

[fol. 3] 4. Transcript of the testimony, including Exhibits 2 and A.

5. Opinion of the Circuit Court for the County of Wayne, Michigan, In Chancery

6. Decree dismissing bill of complaint filed by appellant

7. Opinion of the Supreme Court of Michigan

8. Decree of the Supreme Court of Michigan

9. Notice of appeal to the Supreme Court of the United States

III. The following questions are presented by this appeal:

1. Where Congress has by Statute 46 U.S.C.A., Chapter 14, provided for the inspection and licensing of vessels engaged in interstate and foreign commerce on the Great Lakes and appellant's vessels, including their boilers, which are engaged in interstate commerce, have been inspected by the United States Coast Guard and have been granted permission to navigate on the Great Lakes and have been enrolled and licensed by the Treasury Department of the United States to carry on coasting and foreign trade, is the Smoke Ordinance of the City of Detroit, Michigan valid as to said vessels, when such Ordinance provides for the inspection of the same boilers and prohibits their use, and are the penalty provisions of said Ordinance valid as to appellant's vessels when the prohibited smoke cannot always be prevented by the boilers inspected, approved and licensed by the United States?

2. Where the Smoke Ordinance of the City of Detroit, Michigan provides for the inspection of combustion equipment and prohibits use of certain kinds of boilers and [fol. 4] equipment on vessels engaged in interstate and foreign commerce on the Great Lakes, and prohibits the emission of smoke which cannot be prevented at all times with boilers and equipment commonly used on the Great Lakes, does such Ordinance unduly burden interstate and foreign commerce in matters where uniformity is necessary under the Commerce Clause of the United States Constitution, Article I, Section 8, Cl. 3?

Beaumont, Smith & Harris, Attorneys for Huron Portland Cement Company, Appellant, 1100 Ford Building, Detroit 26, Michigan, Woodward 2-1903.

Dated: April 8, 1959

Proof of Service (omitted in printing).

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[fol. 5] [File endorsement omitted]

STATE OF MICHIGAN
IN THE CIRCUIT COURT FOR THE COUNTY OF WAYNE
IN CHANCERY
No. 514318

[Title omitted]

BILL OF COMPLAINT—Filed March 19, 1956

Let a temporary injunction issue as prayed in a sub'd a of the prayer.

Frank FitzGerald, Circuit Judge.

[fol. 6] Now comes Huron Portland Cement Company, a Michigan corporation, plaintiff herein, and shows unto this Honorable Court as follows:

1. It is a corporation organized and existing under and by virtue of the laws of the State of Michigan and has its principal place of business in the City of Detroit, Wayne County, Michigan.

2. The City of Detroit is a municipal corporation organized and existing under and by virtue of the laws of the State of Michigan. Benjamin Linsky is Chief of the Bureau of Smoke Abatement of the Department of Building and Safety Engineering of said City of Detroit. The defendant, P. J. Lareau, is an Inspector of said Bureau of Smoke Abatement.

3. Plaintiff is engaged in the business of manufacture [fol. 7] and sale of cement, having a mill at Alpena, Michigan with distributing plants at Detroit, Saginaw and Muskegon, Michigan, Toledo and Cleveland, Ohio, Buffalo and Oswego, New York, Duluth, Minnesota, Milwaukee and Green Bay, Wisconsin.

4. Plaintiff transports bulk cement from its mill at Alpena, Michigan to its various distributing plants above referred to by water and for that purpose has a fleet of vessels consisting of S.S. John W. Boardman, S.T. Crapo, Samuel Mitchell, M/V Paul H. Townsend and S.S. E. M. Ford. M/V Paul H. Townsend is a diesel powered vessel. S.S. John W. Boardman and S.T. Crapo are equipped with hand fired scotch marine boilers. S.S. John W. Boardman has two boilers each with two doors and one steam-air jet over each door. S.S. S.T. Crapo has three boilers each with two doors and two steam-air jets over each door. S.S. Samuel Mitchell operated periodically last year. S.S. E. M. Ford did not operate last year.

5. During the 1955 shipping season, the S.S. S.T. Crapo docked at Detroit 22 times for a total number of 526.8 hours, the duration of the stays varying from 2.9 hours to 34.4 hours, the average length being 23.9 hours. The S.S. John W. Boardman during the same time docked at Detroit 25 times for a total of 405.7 hours, the duration of the stays varying from 24.4 hours to 6.1 hours, the average length being 16.2 hours. During this same time the M/V Paul H. Townsend docked at Detroit 22 times for a total number of 311.0 hours, the duration of the stays varying from 8.6 hours to 22.9 hours, the average length being 14.1 hours.

6. On the hand fired vessels it is necessary to keep up full steam while the vessels are docked and unloaded at Detroit. On each watch (every four hours) the fire is [fol. 8] cleaned. On such occasions it is impossible to prevent smoke from the S.S. John W. Boardman and S.T. Crapo of the kind prohibited by Ordinance No. 167-E of the City of Detroit.

7. Plaintiff has cooperated with the Bureau of Smoke Abatement of the City of Detroit in an attempt to eliminate excessive smoke from its hand fired vessels and did install steam air jets at the suggestion of the said Bureau of Smoke Abatement, and has done all that can be done to reduce the amount of smoke on hand fired scotch marine boilers.

8. Congress under the Constitution of the United States is given full and complete authority and power to regulate and control foreign and interstate commerce and Congress under such authority has provided that all vessels navigating the Great Lakes shall be subject to the navigation laws of the United States. The navigation laws of the United States cover the construction, equipment and operations of vessels and provide for an annual inspection of such vessels by the United States Coast Guard. Plaintiff's fleet is engaged in foreign and interstate commerce and navigates the Great Lakes and is inspected annually and approved by the United States Coast Guard.

9. The City of Detroit has a smoke ordinance, so-called, being Ordinance No. 167-E. The defendants claim that said ordinance is applicable to plaintiff's fleet even as to smoke, which cannot be prevented, with the present boilers on certain of the vessels, which boilers have been approved by the United States Coast Guard. There are now pending in Recorders Court of the City of Detroit, Traffic and Ordinance Division, two cases against plaintiff and others, being numbered K-996-600 and K 996-601. In case No. [fol. 9] K 996-600 plaintiff and the Captain and Chief Engineer of the S.S. John W. Boardman, on the complaint of defendant, P. J. Lareau, are charged with allowing the emission of dense smoke from the S.S. John W. Boardman's boiler stacks for a period of nine minutes on a certain day. In case No. K 996-601 the plaintiff and the Captain and Chief Engineer of the S.S. S. T. Crapo on the complaint of defendant, P. J. Lareau, are charged with allowing the emission of dense smoke from the S.S. S. T. Crapo's boiler stack for a period of 9¾ minutes on a certain date. On information and belief plaintiff alleges and charges that defendants do not claim that the emission of the smoke referred to in the two said cases was the result of improper firing or improper use of the equipment upon said vessels. Plaintiff alleges and charges the fact to be that on the occasions referred to in the said cases the firing was proper and the equipment was properly used and the emission of the smoke complained of could not have been prevented with the equipment on the vessels.

10. Section 3.2 of said Ordinance provides that any person, firm or anyone acting in behalf of said person or firm violating any provision of the Act, shall upon conviction be subject to a fine of not more than $100.00 or imprisonment in the Detroit House of Correction for a period of not more than 30 days, or to both such fine and imprisonment in the discretion of the Court. Each day that a violation of the Ordinance is continued or permitted shall constitute a separate offense punishable as above set forth.

11. Plaintiff shows that the defendants have threatened to enforce the said ordinance against it and against the officers on its vessels even where the emission of the objectionable smoke cannot be prevented, and plaintiff fur- [fol. 10] ther shows that the defendants have threatened to issue warrants for the arrest of the officers of its fleet, and plaintiff further shows that the said ordinance is not applicable as to its vessels, except in those cases where the emission of objectionable smoke is caused by improper firing or through the improper use of the equipment upon such vessels.

12. Plaintiff shows that it will suffer irreparable injury and it will be subject to continued harassment and a multiplicity of suits unless the defendants are enjoined from attempting to enforce said Ordinance No. 167-E against plaintiff and against its officers and members of its crews, except where the emi sion of the objectionable smoke is caused by improper firing or by the improper use of the equipment upon such vessels.

13. The matters here involved are in excess of One Hundred Dollars ($100.00) and plaintiff is without remedy, except in a court of equity.

Wherefore, plaintiff prays:

(a) That this Court pending a hearing in this cause and until further order, restrain and enjoin the defendants, their agents, employees, counsellors, attorneys and solicitors, and each and every of them, from the further prosecution of the two cases now pending against plaintiff and

others in the Recorders Court for the City of Detroit, Traffic and Ordinance Division, and from issuing any tickets or warrants for arrest or in any manner attempting to enforce said Ordinance No. 167-E of the City of Detroit against plaintiff, the officers and members of the crews of its vessels, unless the emission of said smoke be caused [fol. 11] by improper firing or by the improper use of the equipment upon said vessel.

(b) That this Court determine and decree that Ordinance No. 167-E is inapplicable, unreasonable and unconstitutional in respect to plaintiff, except where the emission of smoke is caused by the improper firing or the improper use of the equipment upon said vessels.

(c) That the defendants and each of them be permanently enjoined from enforcing or attempting to enforce said Ordinance No. 167-E against plaintiff, officers and members of the crew of its vessels, except where the dense smoke is caused by improper firing or improper use of the equipment upon said vessel.

And the plaintiff may have such other and further relief as may be just and equitable.

Huron Portland Cement Company, By Paul H. Townsend, President.

*Duly sworn to by Paul H. Townsend, jurat omitted in printing.*

[fol. 12] [File endorsement omitted]

[fol. 13]

STATE OF MICHIGAN
IN THE CIRCUIT COURT FOR THE COUNTY OF WAYNE
IN CHANCERY
No. 544,318

[Title omitted]

ANSWER OF THE CITY OF DETROIT, A MUNICIPAL CORPORATION, BENJAMIN LINSKY, CHIEF, BUREAU OF SMOKE ABATEMENT, AND P. J. LAREAU, INSPECTOR—Filed April 3, 1956

Now Come the City of Detroit, a municipal corporation, Benjamin Linsky, Chief Smoke Inspector of the Department of Buildings and Safety Engineering of the said City of Detroit, and P. J. Lareau, an inspector therein, defendants herein, and for answer to plaintiff's bill of complaint, respectfully represent as follows:

1. Answering paragraph one, defendants admit the allegations therein contained.

2. Answering paragraph two, defendants admit the allegations therein contained.

3. Answering paragraph three, defendants not having sufficient knowledge or information upon which to base a belief, neither admit nor deny the allegations therein contained and therefore leave plaintiff to its proofs.

4. Answering paragraph four, defendants admit the allegations therein contained.

5. Answering paragraph five, defendants not having sufficient knowledge or information upon which to base a belief, neither admit nor deny the allegations therein contained and therefore leave plaintiff to its proofs.

[fol. 14] 6. Answering paragraph six, whether or not it is necessary to keep up full steam while the vessels are unloaded and whether or not the fire is cleaned every

four hours, defendants not having sufficient knowledge or information upon which to base a belief thereon, neither admit nor deny such allegations and therefore leave plaintiff to its proofs. Defendants deny the allegation that it is impossible to prevent the emission of smoke from the said vessels of the kind prohibited by the said Ordinance No. 167-E, the Smoke Abatement Ordinance of defendant City of Detroit, to which public record reference is hereby expressly prayed as if specifically herein set forth, and aver that the elimination of said unlawful emission of smoke is not unavoidable.

7. Answering paragraph seven, defendants admit that in conferences with representatives of plaintiff relative to violations by the said vessels of the said Smoke Abatement Ordinance, that the said representatives had asked what could be done to reduce the excessive smoke and were advised by defendant Linsky that overfire steam/air jets were known to be methods for reducing the excess, but that such were not considered a cure-all and in his opinion such methods would not be adequate enough to permit the said vessels to meet the requirement of the said Smoke Abatement Ordinance. Defendants deny the allegation that plaintiff has done all that can be done to reduce the amount of smoke on said boilers and aver that the said unlawful emission of smoke contrary to the said Ordinance is not unavoidable.

8. Answering paragraph eight, defendants admit that the Constitution of the United States grants to Congress the power to regulate interstate and foreign commerce but aver that such does not withdraw from the State and municipalities power to legislate in respect to their local or internal concerns, and that any reasonable exercise of their police power is valid provided that such does not unduly burden interstate or foreign commerce. Defen- [fol. 15] dants further aver that the provisions of the said Smoke Abatement Ordinance do not unduly burden the interstate and foreign operations of plaintiff's said vessels, and that such provisions are a reasonable, proper and valid exercise of the delegated police power of defendant City and are good and sufficient in law.

Defendants further aver the said inspection and approval by the said United States Coast Guard in accordance with the said Federal Navigation Laws embraces only such regulations for the protection of vessels, their passengers, crews and freights and such laws do not provide for the protection of persons and property on land including regulation of fuel and smoke producing characteristics of equipment as a result of its use. Defendants deny the allegation that the said United States Coast Guard approved the boilers of the said vessels as to their operation and emission of smoke.

9. Answering paragraph nine, defendants admit that their claims that the provisions of the said Smoke Abatement Ordinance are applicable to plaintiff's said fleet of vessels, but deny the allegation that the said unlawful emission of smoke therefrom cannot be prevented and also deny that the said boilers were approved by the said United States Coast Guard as to their operation and emission of smoke, and aver that the elimination of said unlawful emission of smoke is not unavoidable.

Defendants admit further that the said two cases are now pending in the said Recorder's Court, Traffic and Ordinance Division; that at the time of the stated violation on the SS John W. Boardman it was found that the said equipment was properly used, but as to the said SS S. T. Crapo the said defendant inspector Lareau was refused access to the vessel and defendants cannot state whether or not the said equipment was properly used during the period of the stated violation. Defendants deny the allegation that the emission of the smoke complained [fol. 16] of could not have been prevented, and aver that plaintiff is bound to comply with the requirements of the said Smoke Abatement Ordinance.

10. Answering paragraph ten, defendants admit the allegations therein contained.

11. Answering paragraph eleven, defendants admit that they intend to enforce the provisions of the said Smoke Abatement Ordinance as they legally apply to plaintiff's vessels, and aver that the said provisions thereof are

applicable as to plaintiff each and every time it permits its vessels to emit smoke in excess of the regulations of the said Ordinance. Defendants further aver that the said emission of the smoke by the said vessels as charged in the said complaint was, and the continuance thereof by plaintiff in its vessels is, a public nuisance thereunder.

12. Answering paragraph twelve, defendants deny the allegations therein contained.

13. Answering paragraph thirteen, defendants deny the allegations therein contained and aver that from the allegations in this and in other paragraphs of plaintiff's bill of complaint, there is no actual or threatened act or acts on the part of the defendants of such character as to cause irreparable injury; that the plaintiff has not shown sufficient facts to confer jurisdiction on a court of equity and that it has an adequate remedy at law.

Wherefore, Defendants further deny that plaintiff is entitled to the relief prayed for in its bill of complaint and pray that the same be dismissed.

City of Detroit, a municipal corporation, Benjamin Linsky, Chief Smoke Inspector of the Department of Buildings and Safety Engineering of the City of Detroit, P. J. Lareau, Inspector of the Department of Buildings and Safety Engineering of [fol. 17] the City of Detroit, Defendants, by Paul T. Dwyer, Corporation Counsel, By Arthur L. Barkey, Assistant Corporation Counsel, Attorneys for Defendants, 1010 City-County Building, Detroit 26, Michigan, Telephone: WOodward 5-4200 Ext. 359.

*Duly sworn to by Arthur L. Barkey, jurat omitted in printing.*

[fol. 18] [File endorsement omitted]

STATE OF MICHIGAN
IN THE CIRCUIT COURT FOR THE COUNTY OF WAYNE
IN CHANCERY
No. 544,318

[Title omitted]

## Pre-Trial Statement—Filed June 28, 1956

Session of June 26, 1956.

Present: Hon. Frank B. Ferguson, Circuit Judge.

APPEARANCES:

Beaumont, Smith & Harris, 1100 Ford Bldg., Attorneys for Plaintiff.

Paul T. Dwyer and Arthur L. Barkey, 1010 City-County Bldg., Attorneys for Defendants.

[fol. 19] Plaintiff claims that it is in the business of manufacturing and selling of cement and that it transports bulk cement from its mill in Alpena by water to various destinations throughout the United States, and for that purpose owns a fleet of vessels, which vessels are equipped with certain types of boiler, and that during the 1955 shipping season they had to dock in Detroit 22 times, staying from three to 34 hours at a time, and that on the hand fired vessels it was necessary to keep up full steam while said vessels were docked in Detroit, and that on such occasions it is impossible to prevent smoke of the kind prohibited by Ordinance 167-E of Detroit.

Plaintiff claims that it has attempted in all manner with the City of Detroit to reduce the amount of smoke, but that it has not been able to do so to the satisfaction of the City of Detroit.

Plaintiff claims that Congress under the Constitution of the United States has full authority and power to regulate and control foreign and interstate commerce, and that

Congress has provided that all vessels navigating the Great Lakes shall be subject to the navigation laws of the United States, and that said laws cover the construction, equipment and operations of the vessels and provide for an annual inspection on such vessels by the United States Coast Guard.

The defendants claim that said ordinance is applicable to plaintiff's fleet even as to smoke which cannot be prevented with the present boilers on certain of the vessels, which boilers have been approved by the United States Coast Guard.

[fol. 20] The City of Detroit has instituted two cases in the Traffic and Ordinance Division of the Recorder's Court against plaintiff, charging it with allowing emission of dense smoke from its vessels.

The plaintiff claims that the defendants have no authority to enforce said ordinance against the plaintiff, and it claims that the ordinance is not applicable to said vessels because the emission of smoke is not caused by improper firing or other improper use of the equipment, and therefore they bring this action to enjoin the prosecution of the two cases in the Traffic and Ordinance Division of the Recorder's Court of the City of Detroit, and to enjoin the City from enforcing said ordinance against it.

Plaintiff also asks that this ordinance be declared inapplicable, unreasonable and unconstitutional, except where smoke is caused by improper firing or the improper use of the equipment.

The defendants deny the claims of the plaintiff and claim that said ordinance is applicable and that the defendant has violated the same, and that it is unconstitutional, and that they are entitled to enforce said ordinance against the plaintiff.

Frank B. Ferguson, Circuit Judge.

[File endorsement omitted]

[fol. 21]

STATE OF MICHIGAN
IN THE CIRCUIT COURT FOR THE COUNTY OF WAYNE

IN CHANCERY

No. 544-318

[Title omitted]

## Transcript of Testimony—Filed July 12, 1957

Proceedings had and testimony taken in the above-entitled cause before Honorable George E. Bowles, Circuit Judge, at Detroit, Michigan, on January 10, 1957.

APPEARANCES:

Beaumont, Smith and Harris, By: Alfred E. Lindbloom, Esq., Appearing on behalf of Plaintiff.

Paul T. Dwyer, Esq., Corporation Counsel, By: John F. Hathaway, Esq., Assistant Corporation Counsel, Appearing on behalf of the Defendants.

* * * * * * *

[fol. 22] JOSEPH F. STENGLEIN, was thereupon called as a witness on behalf of the Defendant, and being first duly sworn, testified as follows:

Direct examination.

By Mr. Hathaway:

Q. What is your name?

A. Joseph F. Stenglein.

Q. Where do you live?

A. Route 1, Box 290, Miamisburg, Ohio.

Q. What is your present occupation?

A. I am an executive vice president and general manager of the Dayton Automatic Stoker Company.

Q. How long have you worked with your present company?

A. I became associated with this company on May 1, 1955.

Q. Prior to May of 1955, what other companies did you work with? In particular, stoker companies?

A. I was the sales manager and connected in the engineering division of the Canton Stoker Corporation in Canton, Ohio.

Q. Could you tell me further how long have you been in the stoker business?

A. I have been in the stoker business since 1931, starting here in the City of Detroit.

Q. In your occupation with the stoker business have you become familiar with the requirements of the smoke [Vol. 23] abatement ordinance of the City of Detroit?

A. Yes, I am familiar with the smoke ordinance.

Q. In your present position as vice president and general manager of Dayton Stoker Company what are your duties?

A. My duties have been entirely aligned with the marine field and I handle all of the contract negotiations, I am responsible for the selection and general engineering functions of the equipment we propose to provide on vessels. I do the survey work and after the layup season has commenced or has proceeded I then spend my time on the vessels, supervising the installations and then at the start of the sailing season, after fit-out, I generally sail on the vessels that have our equipment installed.

Q. At the present time are you installing any of your own underfeed stokers in any ships that are navigating the Great Lakes?

A. We have contracts for installation of stokers on eight scotch marine fired vessels, seven of them or six of them are in American ports and two in Canadian ports and we have contracts for two installations in water tube boilers.

Q. Did you state how many underfeed stokers you have already installed prior to this year?

A. We have stoker fired since 1951, layup season in '51-'52, 23 vessels on the Great Lakes.

Q. 23 vessels?

A. Yes.

[fol. 24] Q. Do you know the steamship Crapo?

A. Yes, I am somewhat familiar with the Crapo.

Q. Have you been aboard the Crapo?

A. I boarded the Crapo, I believe, it was either the last week of August or first week of September last, out in Lake Huron, while she was at anchor about three miles from the port of Alpena.

Q. Do you know whether or not an underfeed stoke could be installed aboard the steamship Crapo?

A. Yes, an underfeed stoker could be installed, or an underfeed stoker installation could be made on that vessel.

Q. Assuming, from your experience in handling stoker equipment and installing such equipment aboard marine vessels, do you know if such a stoker as would be necessary to be installed aboard the Crapo were installed and properly operated, would you know whether such equipment would result in that equipment complying with the smoke abatement code of the City of Detroit?

A. The equipment makes it possible to operate smokelessly or within the qualifying smoke, let's say, it would make it possible to operate within the scope of the International Joint Commission's No. 1, objective and the objectives set up by the City of Detroit.

Q. In their smoke abatement code.

A. That is correct.

Mr. Hathaway: That is all.

* * * * * * *

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[fol. 25]

State of Michigan:
In the Circuit Court for the County of Wayne
In Chancery
No. 544-318

[Title omitted]

Opinion—April 17, 1957

Plaintiff manufactures and sells cement, with a mill at Alpena, Michigan, and distributing plants at Detroit,

Saginaw and Muskegon, Michigan, Toledo and Cleveland, Ohio, Buffalo and Oswego, New York; Duluth, Minnesota and Milwaukee and Green Bay, Wisconsin. It maintains a fleet of vessels to transport bulk cement from the Alpena mill to the distributing plants, the fleet consisting of the steamships John W. Boardman, S. T. Crapo, Samuel Mitchell, E. M. Ford, and the motor vessel Paul H. Townsend. An additional steamship, E. C. Collins, will be added to its fleet within a year or two. All of the vessels with the exception of the motor vessel Paul H. Townsend, which is diesel powered, are equipped with hand-fired scotch marine boilers.

[fol. 26] Steamships John W. Boardman and S. T. Crapo are self unloaders, the power being supplied by boilers; the Samuel Mitchell has its unloading equipment operated by electricity from shore installations; only three docks have such shore installations so the Samuel Mitchell calls only at these ports. The E. M. Ford has a diesel motor which powers the unloading equipment.

The City of Detroit's smoke abatement ordinance, No. 167-E, provides that it shall be unlawful within the city for any person, firm or corporation to permit the emission of smoke of a density equal to or greater than density described as No. 2 on the Ringlemann Chart, with the exception that smoke equal to No. 2 is permitted for a period or periods aggregating four minutes in any 30 minutes, and smoke equal to No. 3 on the Ringlemann Chart is permitted for a period or periods aggregating three minutes in any 15 minutes when building a new fire or the like.

The ordinance provides for annual inspection of combustion equipment or furnace used, with some exceptions, and makes it unlawful in Section 2.16 to use such equipment without a certificate of operation which issues only after inspection. Section 2.20 provides that after any owner has been previously notified of three or more violations within any consecutive twelve-month period, the commissioner shall serve a notice upon the owner and shall seal the equipment unless the commissioner finds that adequate corrective means have been employed to correct the unlawful emission. A fine of $100 or imprison-

ment in the Detroit House of Correction for a period of [fol. 27] not more than thirty days, or both, such fine and imprisonment, are provided. Each day that a violation of the ordinance is continued or permitted shall constitute a separate offense.

On December 20, 1955, two suits were started in the Recorders Court for the City of Detroit, Traffic and Ordinance Division, naming the company as defendant as well as Kenneth Sanchagrin, Captain, and Arthur Johnson, Chief Engineer, of the S. S. Crapo; J. Burke, Captain of the S.S. John W. Boardman; Edward Pugh, Chief Engineer, of the Boardman. Suit K 996-600 charged that the John W. Boardman emitted smoke from its stack for a period of nine minutes between 10:42 AM and 11:02 AM, on December 12, 1955, while docked at the foot of Riopelle Street in the City of Detroit, and suit No. K 996-601, charged the S.S. Crapo emitted dense smoke for a period of 9¾ minutes between 11:49 AM and 12:03 PM, the same day at the same location.

Plaintiff herein brought suit to enjoin the City of Detroit from prosecution of its two suits in Recorders Court and an order was entered against the city to "desist and refrain from the further prosecution of the two cases now pending against plaintiff and others" and "from issuing any tickets or warrants for arrest or in any manner attempting to enforce said ordinance No. 467-E" against "plaintiff, the officers, members of the crews of its vessels, unless the emission of said smoke be caused by improper firing or by improper use of the equipment upon said vessel."

[fol. 28] It is conceded that the equipment on the John W. Boardman was properly used but the City cannot state whether the equipment was properly used on the S. T. Crapo since representatives of the City were refused admission to board this vessel.

It is agreed it is impossible to prevent emission of the kind of smoke prohibited by the smoke ordinance if the vessel is equipped with hand-fired scotch marine boilers. The Boardman has two boilers each with two doors and one steam air jet over each door. The Crapo has three boilers, each with two doors and one steam air.

jet over each door. The steam jets being installed at the suggestion of Benjamin Linsky, former Chief of the Bureau of Smoke Abatement for the City.'

Testimony showed also that the plaintiff used a chemical in an attempt to reduce the smoke. Plaintiff urges it has done everything that it could possibly do with the equipment it has to prevent the emission of smoke. It was shown on trial that the fleet is subject to periodic inspection by the coast guard, which issues a search of inspection. The Crapo in 1955, docked at Detroit twenty-two times for an average docking time of 23.9 hours and the Boardman docked at Detroit 25 times that year with an average stay of 16.2 hours. Both vessels were constantly engaged in interstate and foreign commerce during this period.

Plaintiff claims that the smoke abatement ordinance is unconstitutional as to it except in those instances where the objectionable smoke is caused by improper firing or by the improper use of the equipment on the vessel.

[fol. 29] Has Congress Pre-Empted the Field?

Plaintiff argues that Congress has pre-empted the field through the enactment of elaborate and detailed regulations of steam vessels. *46 U.S. Code Annotated*, Sec. 932 Sup., provides that the coast guard shall inspect, before such vessels are put into service and at least once every two years thereafter, the boilers on unfired pressure vessels and appurtenances thereto; the propelling and auxiliary machinery, electrical apparatus and equipment of all vessels are subject to inspection.

It is argued that since Congress has validly enacted such statutes and regulations, a state or municipality may not pass a statute or ordinance covering the same field. *Kelly* v. *Washington*, 1937, 302 U.S. p. 1. Hand-fired scotch marine boilers have been approved by the coast guard. Smoke of the kind prohibited by the ordinance cannot be avoided, hence the ordinance prohibits the use of a hand-fired scotch marine boiler.

The City, it urges, requires a certain kind of equipment to comply with its ordinance, other and different equipment than that which the Congress has provided may be used.

Reference is made also by analogy to the *Boiler Inspection Act*, Secs. 22-34 of Title 35, *U.S. Code Annotated*, relating to the inspection of railroad locomotives. *Napier v. Atlantic Coastline Railroad*, 1928, 272 U.S. 605.

[fol. 30] The City, on the other hand, urges that the Congress has not enacted laws which provide for the protection of persons and property on land, including regulations of fuel and smoke-producing characteristics of equipment as a result of its use, and that, therefore, there is no conflict with federal regulations and the ordinance. There are devices and appliances which, if installed, would enable the plaintiff to comply, and this compliance may be required.

Under the Home Rule Act, MSA 5.20732 and 5.2083, the police power of Detroit as a home rule city is of the same general scope and nature as that of the State and the ordinance is not directed, as are the federal regulations, to the protection of the vessel, its passengers, crew and freight. *Morgan v. Virginia*, 90 Law Ed. ——, 165 ALR 574. This is a case, it is urged, where Congress has not acted, and although the ordinance affects interstate commerce it is valid.

## Court's Holding

The Court has reviewed the authorities cited in the excellent briefs of the parties, and it is our holding that the federal Congress has not pre-empted this particular field. The constitutional grant to Congress of the power to regulate interstate commerce, it has frequently been held, does not forestall all state action and does not prevent a state from legislating on a matter of local concern, even though interstate commerce may be indirectly and incidentally affected, provided the Congress has not seen fit to enact superseding legislation. *15 CJS*, Commerce, Sec. 11, p. 268. *Cheyboygan Lumber Co. v. Delta Transportation Co.*, 100 Mich. 16. *Burrows v. Delta Transportation* [fol. 31] *Co.*, 106 Mich. 582, *Smith v. Alabama*, 124 U.S. 465, *Nashville, C. & St. Louis Railway Co. v. Alabama*, 128 U.S. 96, 177 U.S. 584, *H. P. Welch & Co. v. State of New Hampshire*, 306 U. S. 79.

These cases are constructions of statutes and ordinances affecting railroads and motor vehicles and are in point, the Court believes, as authority for the validity of the ordinance so far as the doctrine of federal pre-emption is concerned.

The language of the United States Supreme Court in the Welch case, which involved a New Hampshire statute declaring unlawful the operation on state highways of motor vehicles for specified transportation by drivers who have been continuously on duty for more than twelve hours, is persuasive.

It cannot be inferred that Congress intended to supersede any state safety measure prior to the taking effect of a federal measure found suitable to put in its place. Its purpose to displace the local law must be definitely expressed. In construing federal statutes enacted under the power conferred by the commerce law of the Constitution, it should never be held that Congress intends to supersede or suspend the exercise of the reserve powers of the state, even where that may be done, unless and except so far as its purpose to do so is clearly manifested.

Congress has not seen fit to regulate the emission of smoke by vessels in interstate commerce so far as such emission affects persons and property on land. Congress, [fol. 32] therefore, has not pre-empted this particular field so as to exclude state regulation.

Does the Commerce Clause of the United States Constitution Itself Preclude the Enactment of Detroit's Smoke Abatement Ordinance?

Plaintiff argues that a city other than Detroit could pass a smoke ordinance which would prohibit the use of even oil equipment, and other municipalities could pass even different and conflicting ordinances with which it would be impossible for plaintiff to comply. It is a field, therefore, it is urged, where uniformity is necessary in a constitutional sense in accomplishing a permitted purpose. *Morgan* v. *Virginia*, supra. Where uniformity is necessary, it is said, even though Congress has not acted, the Constitutional clause, or the power given by that clause

to Congress, pre-empts or occupies the field and precludes a state or municipality from legislating in respect to anything requiring uniformity.

It would cost roughly $70,000 to equip either the Boardman or the Crapo with stokers, and at least $300,000 each to equip them with oil burning equipment. So the burden upon interstate commerce is very substantial and it is prohibitive if other cities pass conflicting or different ordinances. *Southern Pacific* v. *Arizona*, 1915, 325 U.S. 761. *Kelly* v. *Washington*, supra.

Plaintiff has cited a portion of the Supreme Court opinion in the Kelly case which represents a good statement of its position:

> [fol. 33] "The state law is a comprehensive code. While it excepts vessels which are subject to inspection under the laws of the United States, it has provisions which may be deemed to fall within the class of regulations which Congress alone can provide. For example, Congress may establish standards and designs for the structure and equipment of vessels, and may prescribe rules for their operation, which could not properly be left to the diverse action of the States. The State of Washington might prescribe standards, designs, equipment and rules of one sort, Oregon another, California another, and so on. But it does not follow that in all respects the state act must fail.
>
> * * * * * *
>
> "If, however, the State goes farther and attempts to impose particular standards as to structure, design, equipment and operation which in the judgment of its authorities may be desirable but pass beyond what is plainly essential to safety and seaworthiness, the State will encounter the principle that such requirements, if imposed at all, must be through the action of Congress which can establish a uniform rule. Whether the State in a particular matter goes too far must be left to be determined when the precise question arises."

Plaintiff urges that the congressional regulation of motor driven vessels is much less complete than that of a steam

vessel; that even though the regulation of motor driven tugs was very incomplete, the Supreme Court indicated a state could not impose particular standards as to design, equipment and operation because those requirements, if imposed at all, must be through the action of Congress, which can establish a uniform rule.

The City of Detroit argues, on the other hand, that the smoke abatement code is not such a law as requires uniformity of regulation. Reference is made to Public Act 159, enacted by the Federal Congress in 1955, wherein it is provided in Section 1:

> [fol. 34] "That in recognition of the danger to public health and welfare, injury to agricultural crops and livestock, danger to, and danger of property and hazards to air and ground transportation, from air pollution, it is hereby declared to be the policy of Congress to preserve and protect the primary responsibilities and rights of the states and local governments in controlling air pollution."

Reference is also made to Volume 2, U.S. Code; *Congressional News*, 1955, pp. 2459 and 2461, states:

> "The bill does not propose any exercise of police power by the Federal Government and no provision in it invades the sovereignty of States, counties, or cities. There is no attempt to impose standards of purity.
>
> * * * * *
>
> "Moreover, unlike the water-pollution field in which a similar board now exists, instances of troublesome interstate air pollution are few in number and no federal legal control over interstate air pollution is currently proposed."

Reliance is placed upon *Atlantic Coastline Railroad* v. *Georgia*, 234 U.S. 290, construing a Georgia law requiring railroad locomotives operating on the main lines to be equipped with electric headlights of 300 watt power and to have reflectors of a certain dimension, wherein the Supreme Court stated in upholding the law said:

"The requirements of a state, of course, must not be arbitrary or pass beyond the limits of a fair judgment as to what the exigency demands, but they are not invalid because another state in the exercise of a similar power may not impose the same regulation."

Here a congressional Act had provided for locomotive brakes, ladders, grab irons and other safety requirements. [fol. 35] Reliance was similarly placed on certain motor vehicle cases: *Morris* v. *Duby*, 274 U.S. 135; *Maurer* v. *Hamilton*, 309 U.S. 598, as well as state regulations of seagoing vessels, *Kelly* v. *Washington*, supra.

Summarizing these cases the City argues that the Supreme Court will not hold a state or local law invalid because (1) different states would require different devices, or (2) the fact that a state may change the law requiring further changes in equipment, or (3) because the Federal Government has entered the field, unless the local law is proved to be in direct conflict with the federal regulation.

## Court's Holding

The Court has reviewed the authorities cited by the parties and concludes that the constitutional control by the Federal Government of interstate commerce does not preclude a smoke abatement ordinance such as here involved where the Federal Congress has not seen fit to pass specific legislation calculated to protect property and persons on land, as opposed to regulations for the protection of crews and passengers as well as vessels and freight on vessels in interstate commerce.

While it is conceivable that uniformity of regulation through an act of Congress might be desirable, it is not a subject on which local authority may not legislate to meet local needs. It is readily conceivable that local situations require different and particular provisions depending upon the needs and the problems encountered by the local authorities.

[fol. 36] The state regulatory measures upheld as to vessels in interstate commerce and as to railroads and motor vehicles in interstate commerce incline the Court

to such a view: Smoke abatement does not, at this stage of scientific development, admit of only one system or plan of regulation but is a subject, it is believed, which requires diversity of treatment to meet local exigencies.

## Is the Smoke Abatement Ordinance a Valid Exercise by the City of Detroit of Its Police Power?

It is well established that a considerable discretion is vested in legislative authority to determine not only what the interests of the public require but what measures are necessary for the protection of these interests. New subjects may be embraced within the police power as changing conditions require. *People* v. *Sell*, 310 Mich. 305, 316.

Considerable latitude is allowed for differences of view and possible peculiar conditions. *Safee* v. *City of Buffalo*, 198 NYS p. 649; *Cady* v. *City of Detroit*, supra.

> "The court is required, if it can consistently do so, to give to the provisions such a reasonable construction as will sustain it. It has no right to invade the legality province. Its power is confined to those cases in which a municipal ordinance is clearly and manifestly made to appear to be unreasonable or oppressive in its operation. (*Building Comm.* v. *Kunin*, 181 Mich. 611.)

The Court may concern itself only with the question of whether the legislative authority, assuming it has the power to enact a regulation, has so arbitrarily and capriciously exercised that power as to make the regulation [fol. 37] unreasonable, in deprivation of the constitutional rights of the complaining parties. *Red Star Motor Drivers' Assn.* v. *Detroit*, 234 Mich. 398.

The emission of smoke has been subject to lawful regulations for many years. *People* v. *The Detroit White Lead Works*, et al., 82 Mich. 471. *People* v. *Lewis*, 86 Mich. 273; *People* v. *Detroit, Belle Isle & Windsor Ferry Co.*, 187 Mich. 177.

The general subject matter having been regulated lawfully, the question here is whether the particular regulation, establishing a standard of proscribed smoke emission, namely, "density equal to or greater than the density of No. 2" of the Ringlemann Chart is permissible, and reasonably related to the purposes of the ordinance. This stand-

ard has been sustained in the State of New Jersey. *Atlantic City* v. *France*, 65 Atl. 894, affirmed, 70 Atl. 163. This case on appeal, however, restated the old law that a common law nuisance must still be proved to convict under the ordinance.

The case of *Board of Health of Weehawken Twp.* v. *New York Central R.R. Co.*, 90 Atl. 2d. 729, recognized the proposition that if is not necessary to prove that air pollution results in a public nuisance in order to have it prohibited by ordinance, and upheld the standard of No. 2 of the Ringlemann Chart as a reasonable standard for proscribed smoke, even though the particular activity does not result in a public nuisance.

[fol. 38] Court's Holding

It is the view of this Court that the ordinance here, making unlawful the emission of smoke of a certain density is necessary and reasonable, and a valid exercise of local police power.

Scientific development in the field of smoke abatement, it is believed, has reached that point where a legislative authority may determine that smoke of a particular density should be prohibited in the interests of the safety, health and welfare of the general public. This exercise of legislative judgment should not be subject to judicial supervision unless plainly beyond the legitimate exercise of police power. We do not believe that Detroit's smoke abatement ordinance is an arbitrary or unreasonable exercise of police power.

That conformity to the requirements established by the City will require the discontinuance by plaintiff of some of its present equipment does not render the ordinance constitutionally offensive. *People* v. *Consolidated Edison Co., of New York*, 116 NYS 2d, 555; *Northwestern Laundry* v. *Des Moines*, 239 U.S. 486, 60 Law Ed. 396; *Barrows* v. *Delta Transportation Co.*, supra.

It is, therefore, held that Ordinance 167-E, of the City of Detroit is constitutional.

A permanent injunction is denied.

George E. Bowles, Circuit Judge.

Dated: April 17, 1957.

[fol. 40] [File endorsement omitted]

STATE OF MICHIGAN
IN THE CIRCUIT COURT FOR THE COUNTY OF WAYNE

IN CHANCERY

No. 544-318

[Title omitted]

DECREE AND ORDER DISMISSING BILL OF COMPLAINT—
May 1, 1957

At a Session of said Court held in the City-County Building in the City of Detroit, County of Wayne, State of Michigan, on May 1, 1957.

Present: Honorable George E. Bowles, Circuit Judge.

This cause having come on to be heard upon the bill of complaint and answer thereto and proofs taken therein in open Court and the matters in issue having been argued by counsel for the respective parties and the Court being fully advised in the premises, and the Court having filed an Opinion which by reference is made a part hereof, finding that the plaintiff is not entitled to the relief prayed for in its bill of complaint and that Ordinance 167-E is constitutional.

Therefore, Upon motion of the attorneys for defendants,

It Is Ordered, Adjudged and Decreed that the bill of complaint filed in said cause on behalf of plaintiff be dismissed and plaintiff's prayer for permanent injunction be denied, with costs to the defendants to be taxed.

George E. Bowles, Circuit Judge.

O.K. as to form.

Beaumont Smith & Hanir, Attys. for plaintiff.

Countersigned, Edgar M. Branigin, Clerk, Barney Barthoural, Deputy Clerk.

[fol. 41]

IN SUPREME COURT OF STATE OF MICHIGAN

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HURON PORTLAND CEMENT COMPANY, a Michigan corporation, Plaintiff and Appellant,

v.

CITY OF DETROIT, a Michigan municipal corporation, BENJAMIN LINSKY, Chief, Bureau of Smoke Abatement, P. J. LAREAU, Defendants and Appellees.

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OPINION—Filed January 12, 1959

Before the entire bench.

VOELKER, J.

The defendant city of Detroit has a comprehensive ordinance (No. 167-E) entitled "Smoke Abatement Code" which provides that it shall be unlawful within that city to permit the emission of smoke of a density equal to or greater than that described as No. 2 Ringlemann Chart (a standard accepted way of measuring the density of smoke). This ordinance allows certain temporary exceptions which are not now relevant. It also provides that after an owner has been warned of 3 violations within a 12 month period the commissioner, a city official, shall serve notice on the owners and seal the offending equipment unless he finds that adequate corrective steps have been taken. It also provides for the inspection of equipment and for fines and imprisonment for failure to comply with the ordinance.

On December 20, 1955 the city of Detroit filed complaints in the traffic and ordinance division of the recorder's court [fol. 42] thereof against plaintiff-appellant, owner of the steamships John W. Boardman and S. T. Crapo for allowing the emission of dense smoke at the port of Detroit contrary to the provisions of the ordinance in question.

Appellant then filed suit in circuit court to enjoin the city of Detroit and the other defendants from prosecuting the complaints, and an order was entered granting such an injunction during the pendency of this suit. Thereafter

in circuit court the plaintiff claimed that the ordinance was unconstitutional as to it except in those instances where the objectionable smoke is caused by improper firing or by the improper use of the equipment on the vessel. It is conceded that the vessels operate in interstate commerce. The trial court held that the ordinance was constitutional and that it was a necessary and reasonable exercise of the local police power. From a decree to that effect plaintiff has appealed.

In the exercise of its constitutional power to control interstate commerce the Congress of the United States has provided for extensive control and inspection of American vessels on the Great Lakes. It is the contention of appellant that by such legislation Congress has pre-empted the field and that therefore the ordinance in question is invalid.

The relationship between state and congressional power to control interstate commerce is well stated in 15 CJS, Commerce §11, p. 268 as follows:

> "However, the constitutional grant to congress of power to regulate interstate commerce, although operating of its own force to curtail state power in some measure, does not forestall all state action affecting interstate commerce; it does not withdraw from the states power to legislate in respect of their local concerns, even though such legislation may indirectly and incidentally affect interstate commerce. Although state legislation affects interstate commerce incidentally, indirectly, or remotely, yet where it does not undertake to regulate such commerce and is no more than a bona fide, legitimate, and reasonable exercise of the reserved police power of the state in respect of a matter of local or internal concern, it is valid and * * * will stand, in the absence of conflicting and superseding legislation by congress in the exercise of its superior authority to regulate commerce among the states. * * * "

[fol. 43] Appellant's first question on appeal thus falls naturally into 3 parts: 1: Does the ordinance conflict with any federal legislation? 2: Does it seek to regulate interstate commerce? 3: Is it a reasonable exercise of local police power?

To determine the first part of that question we must look at the scope and intent of the congressional legislation and then examine the ordinance in question to see if it pertains to the same subject matter. The federal legislation cited in appellant's brief, USCA, Title 46, Ch. 14, is, so far as we can determine, intended primarily for the protection and safety of vessels and their passengers, crew and cargo. None of the federal legislation in this field is to our knowledge designed or enacted for the protection of persons and property on land. Appellant has cited none in its brief. (See 1951-52 OAG, p. 370 to the effect that the United States Coast Guard so interprets the applicable federal legislation.) It appears to us that the ordinance and the federal legislation deal with basically different subject matter and are thus not in such conflict that the former must bow.

A quick glance at the title of the ordinance, "Smoke Abatement Code," is sufficient to learn its intent. Even the most casual reading of it indicates clearly that its sole purpose is to protect the health and welfare of the residents of Detroit by preventing the emission of dense smoke into the air which the people must breathe.

Thus paragraphs 2 and 3 of the preamble to the ordinance provide:

> "Whereas, the excessive emission of dense smoke within the corporate limits of the City of Detroit and the resultant effect upon the public health and welfare require the adoption of a comprehensive and integrated plan of smoke control; and
>
> "Whereas, in conjunction with the smoke control program it is desirable to adopt appropriate regulations to reduce air pollution caused by excessive soot, cinders, fly ash, dust, noxious acids, fumes and gases, the emission of which is detrimental to the health and welfare of the residents of the City: Now, Therefore,"

[fol. 44] We think the ordinance before us is clearly aimed at the prevention of air pollution and not at any regulation of interstate commerce. If it affects interstate commerce at all we think it is only indirect and incidental.

Little need be said on the subject of whether or not this ordinance is a reasonable exercise of local police power. We think that by now it is sufficiently clear without citation of authority that excessive air pollution by dense smoke cannot be anything but harmful to the health and welfare of a community. Indeed in 1955 Congress appropriated $5,000,000 a year for 5 years for research into and control of the increasingly vexing problem of air pollution. (We also note that the first national conference on air pollution was held in Washington, D. C. during November, 1958. The National Cancer Institute is presently studying the problem but as of this writing has announced no results. See science section of *Saturday Review* for November 8, 1958.)

We note further that the preamble to the above mentioned congressional appropriation statute says in part:

> "* * * it is declared to be the policy of Congress to preserve and protect the primary responsibilities and rights of the States and local governments in controlling air pollution, to support and aid technical research to devise and develop methods of abating such pollution, and to provide Federal technical services and financial aid to State and local government air pollution control agencies and other public or private agencies and institutions in the formulation and execution of their air pollution abatement research programs. * * *" USCA, Title 42, Ch. 15B, §1857.

Regarding this appropriation statute appellant correctly states in its reply brief:

> "* * * In that Act Congress was not attempting to give up its inspection of vessels, locomotives, motor carriers and other things that might conceivably cause or be involved in smoke pollution."

That however is not the question before us. The point is that the ordinance does not seek to supersede or replace any existing provisions of Congress either in the realm of air pollution or for the inspection of vessels, as already [fol. 45] noted. Its purpose is simply to control to some extent the emission of unnecessary smoke in a community

so as to protect the health and welfare of its inhabitants. The portion of the statute quoted above indicates to this Court that the ordinance in question is not only a reasonable exercise of local police power but that such actions by local authorities have the recent blessing and financial encouragement of Congress itself.

On the other hand we reluctantly realize that the pastoral pine-scented days of yore are gone forever, and that our society has become dependent upon vast conglomerates of power of which smoke is all too frequently an unwanted by-product. Thus the elusive question of the reasonableness of such local legislation boils down to one of relativity. An ordinance of this type may be said to be reasonable only if it does not unduly hamper industry and our continual need for power. It does not follow, however, that if we cannot have smokeless cities that men must compose themselves and dwell in an ever-deepening pall of smoke. If this ordinance sought to prevent the emission of all smoke, or if adequate means of smoke control were not available, then a different question might be before us. But this ordinance concededly seeks to outlaw only the emission of smoke of such density that can readily be prevented by the use of modern smoke control equipment. All it costs is money. We find and hold that the ordinance in question is a reasonable exercise of the local police power and as such does not unduly interfere with interstate commerce.

Appellant also argues that whether or not Congress has expressly preempted the field of smoke abatement, the Detroit ordinance unduly burdens interstate and foreign commerce in matters where uniformity is necessary. Appellant bases its arguments on this score primarily on the [fol. 46] fear that local legislation might be inconsistent, that is, that upon meeting Detroit's ordinance it may in the future have to change its equipment again to meet even stricter requirements at some other port. This is a clear possibility we certainly do not deny. We do not see however why *this* ordinance should be held invalid simply because of the possibility that another ordinance might another day be enacted in another place that is even more stringent. Sufficient unto the day is the evil thereof; we will endeavor to cross that smoke-fogged bridge when we come to it. We do not discern it in this case.

As noted, if appellant meets only the minimum requirement of this ordinance it might very well become a burden on it to meet more stringent future requirements as they are enacted. Because of this possibility it would have us strike down the present ordinance. We suggest that such a burden might be avoided if appellant sought to meet the spirit rather than the letter of this present ordinance. This could concededly be done by installing modern equipment and available processes of firing that would reduce smoke to the least possible density. If some future ordinance goes beyond this appellant or someone in its shoes might have a better and a more persuasive basis for a claim of unreasonable burdensomeness.

In an analogous case involving a Georgia statute that required the use of a certain type of headlight on railroad engines, the United States supreme court spoke as follows in answer to arguments strikingly similar to those presented in this case (Atlantic C.L.R. Co. v. Georgia, 234 US 280):

> "In thus deciding, the court applied the settled principle that, in the absence of legislation by Congress, the states are not denied the exercise of their power to secure safety in the physical operation of railroad trains within their territory, even though such trains are used in interstate commerce. That has been the law since the beginning of railroad transportation. It was not intended that, pending Federal action, the use of such agencies, which, unless carefully guarded, was fraught with danger to the community, should go [fol. 47] unregulated, and that the states should be without authority to secure needed local protection. The requirements of a state, of course, must not be arbitrary, or pass beyond the limits of a fair judgment as to what the exigency demands, but they are not invalid because another state, in the exercise of a similar power, may not impose the same regulation. * * *
>
> "If there is a conflict in such local regulations, by which interstate commerce may be inconvenienced,—if there appears to be need of standardization of safety appliances, and of providing rules of operation which

will govern the entire interstate road, irrespective of state boundaries,—there is a simple remedy; and it cannot be assumed that it will not be readily applied if there be real occasion for it. That remedy does not rest in a denial to the state, in the absence of conflicting Federal action, of its power to protect life and property within its borders, but it does lie in the exercise of the paramount authority of Congress, in its control of interstate commerce, to establish such regulations as, in its judgment, may be deemed appropriate and sufficient. Congress, when it pleases, may give the rule and make the standard to be observed on the interstate highway."

We concede that this subject is one that might well call for uniform legislation of federal scope, but until that happens we are not persuaded that our citizens must patriotically gag, choke and grope with obedient resignation until that happy day arrives. Nor are we persuaded that short of any such uniform legislation that local governments are in the meantime powerless to make a proper exercise of their police power.

Appellant cites McMorran v. Cleveland-Cliffs Iron Co., 253 Mich. 65, where this Court reversed that portion of the chancellor's decree below restraining as a nuisance the smoke from the stacks of certain coal-burning lake vessels while tied up at a coaling dock at Port Huron. No smoke ordinance was there involved; the opinion does not indicate that further smoke abatement was there readily available; the plaintiff householders there had moved into the area after these conditions had already long existed; and the smoke from the lake vessels was but a fraction of the general smoke, soot, dust and noise which had long existed, emanating mostly from stationary industrial installations. Our opinion there indicates that the smoke from the vessels was but a reasonable incident of navigation. That case and others cited by appellant are not controlling of our decision here.

[fol. 48] The judgment below is affirmed, but without costs, both a public question and public legislation being involved.

[fol. 49]

IN THE SUPREME COURT OF THE STATE OF MICHIGAN

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HURON PORTLAND CEMENT CO.,
Plaintiff and Appellant,

vs. 47364

CITY OF DETROIT, et al., Defendants.

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Present: the Honorable John R. Dethmers, Chief Justice, Leland W. Carr, Harry F. Kelly, Talbot Smith, Eugene F. Black, George Edwards, John D. Voelker, Thomas M. Kavanagh, Associate Justices.

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DECREE—January 12, 1959

This cause having been brought to this Court by appeal from the Circuit Court for the County of Wayne, in Chancery, and having been argued by counsel, and due deliberation had thereon, it is now ordered, adjudged and decreed by the Court, that the decree of the Circuit Court for the County of Wayne, in Chancery be and the same is hereby in all things Affirmed

And it is further ordered, adjudged and decreed that no costs be awarded herein.

Clerk's Certificate to foregoing paper (omitted in printing).

[fol. 49c] [File endorsement omitted]

[fol. 50] [File endorsement omitted]

[fol. 51]

STATE OF MICHIGAN
IN THE CIRCUIT COURT FOR THE COUNTY OF WAYNE
IN CHANCERY
No. 544-318

HURON PORTLAND CEMENT COMPANY, a Michigan corporation, Appellant,

vs.

CITY OF DETROIT, a Michigan municipal corporation, BENJAMIN LINSKY, Chief, Bureau of Smoke Abatement, P. J. LAREAU, Appellees.

CROSS-DESIGNATION BY APPELLEES OF ADDITIONAL MATTERS TO BE INCLUDED IN RECORD—Filed April 17, 1959

To the Clerk of the Court:

You are hereby requested, pursuant to the provisions of Rule 12 of the Rules of the Supreme Court of the United States, to incorporate into the transcript of record on the appeal herein, in addition to the portions of the record designated by appellant herein in its Notice of Appeal, the following:

1. The Preamble to Ordinance No. 167-E of the City of Detroit and also Sections 2.1, 2.2a and 2.2b, and 3.1 of Ordinance No. 167-E of the City of Detroit.

2. This Cross-Designation, together with Proof of Service.

Nathaniel H. Goldstick, Corporation Counsel, John F. Hathaway, Assistant Corporation Counsel, Roger P. O'Connor, Assistant Corporation Counsel, By Roger P. O'Connor, Assistant Corporation Counsel, Attorneys for Appellees, City of Detroit, etc., 1010 City-County Building, Detroit 26, Michigan, WO. 5-4200, Ext. 575.

Dated: April 17, 1959.

[fol. 52] Proof of Service (omitted in printing).

*Official*

# SMOKE ABATEMENT CODE

*of the*

# City of Detroit

**Ordinance No. 167-E**

**As Amended to October 16, 1947**

*Official*

# SMOKE ABATEMENT CODE

*of the*

# City of Detroit

**Ordinance No. 167-E**

**As Amended to October 16, 1947**

*OFFICIAL*

# SMOKE ABATEMENT CODE

**of**

**Detroit, Michigan**


| | Page |
|---|---|
| Index to Code | 15 |
| Index to Articles | 15 |
| Smoke Abatement Code | 1-13 |
| Index to Charts and Tables | 15 |



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**(Make notation on page 363)**

**An Ordinance Regulating Smoke and Air Pollution in the City of Detroit**

**AN ORDINANCE to provide for the control of smoke, the constituent parts thereof, and air pollution within the corporate limits of the City of Detroit; to define the powers and duties of the Department of Buildings and Safety Engineering in connection therewith; to provide for the administration and enforcement thereof; to provide a penalty for the violation of the terms thereof and to repeal all former ordinances and amendments thereto conflicting therewith.**

Whereas, the excessive emission of dense smoke within the corporate limits of the City of Detroit and the resultant effect upon the public health and welfare require the adoption of a comprehensive and integrated plan of smoke control; and

Whereas, in conjunction with the smoke control program it is desirable to adopt appropriate regulations to reduce air pollution caused by excessive soot, cinders, fly ash, dust, noxious acids, fumes and gases, the emission of which is detrimental to the health and welfare of the residents of the City: Now, Therefore,

IT IS HEREBY ORDAINED BY THE PEOPLE OF THE CITY OF DETROIT:

**Article 1 (Definitions)**

For the purpose of this Ordinance the following definitions shall apply:

(1.1) **Air Jets.** Any apparatus operated by steam or a motor-driven blower for the purpose of causing turbulent air to be introduced into a furnace and to cause a more complete mixture of oxygen with the gases of combustion immediately above the fuel bed.

(1.2) **Atmospheric Pollution.** The discharging from stacks, chimneys, exhausts, vents, ducts, openings or open bonfires, of any smoke, soot, fly ash, cinders, noxious acids, fumes, oxides, gases, vapors or industrial dusts that cause atmospheric contamination in amounts detrimental to the public health and welfare as defined elsewhere in this Ordinance.

(1.3) **Baffling.** Any row, rows, plane or planes of refractory or other material that causes the gases in a steam boiler or other vessel or device to assume a definite and predetermined path of travel before reaching the chimney or smoke stack.

(1.4) **Board.** Board of Appeals as herein provided.

(1.5) **Breeching.** Any conduit located between the last pass of a boiler, incinerator or other device for the consumption of fuel and the smokestack that conducts smoke, products of combustion and/or gases to the atmosphere or to any intermediate device before being discharged into the atmosphere.

1.6. **Bridgewall.** Any wall at the rear of the grate or stoker that acts as a deflector or radiant heat reflector for the furnace gases and as a stop to the fuel bed or a rear wall of the ash pit.

(1.7) **Bureau.** The Bureau of Smoke Inspection and Abatement of the Department of Buildings & Safety Engineering, as provided for in the City of Detroit Charter under Chapter XVI.

(1.8) **Chimneys and Stacks.** Any conduit, duct, vent, exhaust, or structure or opening of any kind whatsoever capable of and used for the emission of smoke, soot, cinders, noxious acids, gases, fly ash or industrial dusts.

(1.9) **Cinders.** Particles not ordinarily considered as fly ash or dust because of their greater size, entrained in the products of combustion and consisting essentially of fused ash and/or unburned combustibles.

(1.10) **Cleaning Fires.** The act of removing clinkers and/or ash from the fuel bed or furnace.

(1.11) **Combustion Equipment.** Any furnace, incinerator, refuse-burning equipment, fuel-burning equipment, boiler apparatus, device, mechanism, stack or structure used in the process of burning fuel or combustible material.

(1.12) **Commissioner.** Commissioner of the Department of Buildings and Safety Engineering of the City of Detroit, Michigan.

(1.13). **Damper, Automatic or Manual.** Any device placed in the breeching of boilers or incinerators or the smoke pipe of any furnace or other device to regulate the gas pressure or escape of the products of combustion or other gases or air pollutants.

(1.14). **Department.** Department of Buildings and Safety Engineering of the City of Detroit, Michigan.

(1.15) **Dust Collectors, Mechanical Collectors, etc.** Cyclone centrifugal effect collectors, screen cloth (bag type) wet type filters or those using charcoal, spun glass fibers or other material as a filter. Contact, impact baffled, or adhesive collectors. Spray centrifuge type washers, filter towers, electric precipitators. Gravity type dust or settling chambers, etc. Verticose effect collectors, either single or in batteries.

(1.16) **Extension Furnace (Dutch Oven).** Any masonry structure or combination of masonry and metal built on the front of a boiler furnace or other combustion device for the

purpose of obtaining additional furnace volume.

(1.17) **Fire Tubes.** Those tubes through which the hot gases of combustion pass on the way to the breeching to be exhausted into the atmosphere. (Fire tubes are not to be confused with furnace volume.)

(1.18) **Fly Ash.** Gas or air-borne particles larger than one micron (approximately 0.00004 inch) and consisting essentially of fused ash and/or burned or unburned combustible material.

(1.19) **Fuel Dealer.** A retail dealer is one who sells solid fuels in broken bulk, physically handled in other than carlot or cargo vessels, and delivers to the ultimate consumer without regard to price, quantity, or frequency of delivery.

(1.20) **Fumes.** Gases, vapors, metallic oxides that are of such character as to create an unclean, destructive, offensive or unhealthful condition.

(1.21) **Furnace Volume.** Furnace volume is that volume above the fuel bed and in front of the bridge-wall. In case of horizontal fire box boilers, it is that volume measured to the front tube sheet. In the case of vertical tubular boilers, it is that volume measured to the lower tube sheet.

(1.22) **Gases.** Any gas of such character and quantity as to create a hazard to the health and property of the individual or of the public.

(1.23) **Heating Surface.** Any boiler surface having water on one side and hot gases on the other side not excepting any surface covered by the arches or refractory used in the construction of the boiler furnace.

(1.24) **Industrial Dusts. Gas** or air-borne particles larger than one micron emanating from a manufacturing process or material storage or handling.

(1.25) **Kindling Fires.** The act of building up a fuel bed after a new fire has been started. It does not mean replenishing the fire with fresh fuel.

(1.26) **Mechanical Combustion Equipment.** Combustion equipment in which the fresh fuel or combustible material is introduced from outside the furnace into the zone of combustion, the same being actuated by adequate controls; provided, however, that where the Commissioner finds as a fact and so certifies that a stove or other combustion equipment in which the fresh fuel or combustible matter is introduced by hand, is so designed as to automatically burn the fuel or combustible matter smokelessly in a manner not to violate the provisions of this Ordinance, such stove or combustion equipment will be considered as mechanical combustion equipment within the meaning of this Ordinance.

(1.27) **Noxious Acids.** Anhydrous or hydrous acid forms in concentrations high enough to be poisonous or to constitute a nuisance.

(1.28) **Oil Burners.** Any device for the introduction of vaporized or atomized fuel oil into the furnace of any fuel-oil burning furnace or device.

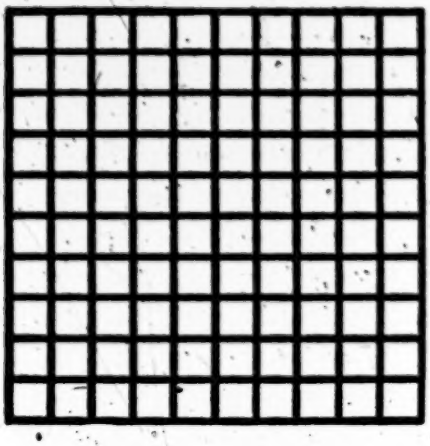
(1.29) **Open Fire.** Any fire wherein the products of combustion are emitted into the atmosphere and are not directed thereto, by or through a smoke stack, chimney or other vent flue or structure.

(1.30) **Person.** Person or persons, firms, corporations, institutions, organizations or associations of any kind or nature. The masculine, feminine, singular or plural is included in any circumstances.

(1.31) **Repair.** Any work which requires the heating or power equipment to be wholly or partially dismantled and which results in the restoration of the heating or power equipment to its original state.

(1.32) **Ringlemann Chart.** The Ringlemann Chart with instructions for use as published by the U. S. Bureau of Mines.

RINGLEMANN CHART



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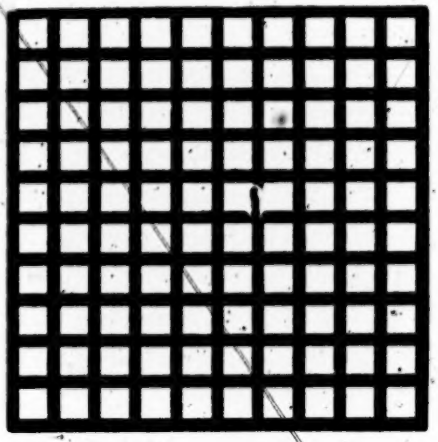

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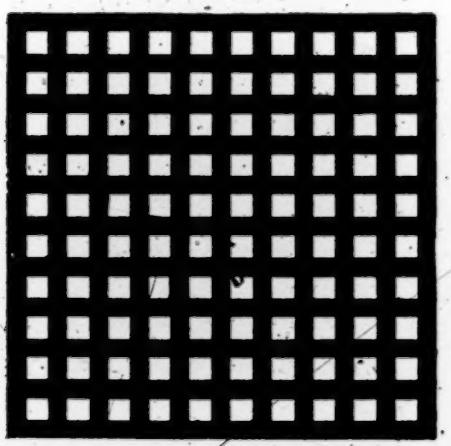

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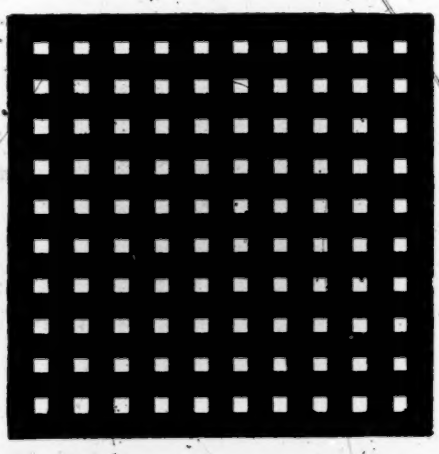

**Place the Chart on a line with the stack and far enough away from the left eye so that no white between lines can be seen. Then compare with the smoke under observation.**

(1.33) **Smoke.** The visible, finely divided material that escapes from a substance during combustion, except such other materials as are covered by this Ordinance.

(1.34) **Smoke Indicator.** Any device electrically or manually operated, fixed or movable, consisting of photo-electric devices, mirrors or series of mirrors which will allow firemen or other persons operating boilers and/or other fuel burning equipment to determine the density and color of smoke and/or the ingredients of smoke, noxious fumes, acids, oxides or industrial dusts being expelled into the atmosphere.

(1.35) **Smokeless Solid Fuel.** For the purpose of this Ordinance, a solid fuel, the volatile content of which is 23% or less on an ash and moisture-free basis. Except that if a fuel contains volatile matter in excess of 23% on an ash and moisture free basis, it shall be acceptable under the terms of this Ordinance, provided that it meets the same standards with regards to smoke production as that of a fuel containing less than 23% volatile matter on an ash and moisture-free basis and subject to the following conditions in order to ascertain whether or not such standards are met in case of violation: First, com-

plete specifications of the fuel and description of its processing or manufacture must be submitted to the Bureau of Smoke Inspection and Abatement, and from time to time any additional information that may be reasonably required must also be submitted.

Second, an adequate supply of the finished product must be made available to the Bureau of Smoke Inspection and Abatement to conduct whatever tests are deemed necessary to establish its value as a smokeless fuel.

Third, field tests to determine if such fuels can be so fired as to comply with the provisions of this Ordinance may be required.

Fourth, any person whose product is submitted to such tests must pay all expenses necessary to the attendant tests, and the Bureau shall furnish the submittor a copy of the report of the results of such tests.

Fifth, the enforcement of this section with reference to the volatility standard for fuel shall not apply to hand-fired combustion equipment in buildings containing not more than four one-family dwelling units, until October 1, 1949, after which date all the provisions of this section shall apply to such equipment.

(1.36) **Solid Fuel.** Any mined, packaged, or prepared coal, coke, petroleum coke, carbonized coal, either natural or manufactured, synthetic, processed or patented fuel, not sold by liquid or metered measure.

(1.37) **Soot.** Agglomerated particles consisting essentially of carbonaceous material.

(1.38) **Stokers.** Any mechanical or hand-operated device that provides for the controlled burning of solid fuel and the controlled supply of air for combustion.

(1.39) **Surface Burning Type.** Any combustion equipment in which the fresh fuel can be thrown directly on the hot fuel bed.

(1.40) **Umbrascope.** An instrument consisting of an open tube through which observations are made to measure the density of smoke. One end of the tube is closed except for a small opening serving as an eyepiece. At the other end, which is open, there are four semicircular glass light-filters so adapted as to cover a maximum of one-half the field of vision, and so arranged as to allow their use singly or collectively for the purpose of measuring the relative density of smoke against the ambient sky. The results of the observations are then compared with the Ringelmann Chart and the equivalent Ringelmann reading obtained. The method used to obtain equivalent readings is outlined in a report in the Department's files.

(1.41) **Volatile Matter.** The gaseous constituents of solid fuels.

(1.42) **Water Tubes.** Those tubes containing water, around which the gases of combustion pass.

(1.43) **Wing Wall and Combustion Arch.** Any firebrick construction built inside a boiler furnace or other furnace that serves as a deflector of gases in the combustion chamber and as a means of providing radiant heat to aid in the combustion process.

**Article 2—Administrative**

(2.1) The escape of smoke, soot, cinders, noxious acids, fumes, gases, industrial dust or fly ash as herein prohibited is hereby declared to be a nuisance and may be summarily caused to be abated by the Commissioner or by anyone whom he may duly authorize for such purpose. Such abatement may be in addition to the fines and penalties hereinafter provided

Sec. 2.2A. It shall be unlawful within the City of Detroit for any person, firm or corporation to permit the emission of any smoke from any source whatever of a density equal to or greater than that density described as No. 2 on the Ringlemann Chart; Provided, That the following exceptions to the provisions of this section shall be permitted:

(a) Smoke, the shade or appearance of which is equal to but not darker than No. 2 of the Ringlemann Chart for a period, or periods, aggregating four minutes in any 30 minutes;

(b) Smoke, the shade or appearance of which is equal to but not darker than No. 3 of the Ringlemann Chart for a period, or periods, aggregating three minutes in any 15 minutes, when building a new fire or when breakdown of equipment occurs such as to make it evident that the emission was not reasonably preventable.

2.2B. It shall be unlawful within the City of Detroit for any person, firm or corporation to permit or cause the escape of such quantities of soot, cinders, noxious acids, fumes, gases, fly ash or industrial dust, in such place or manner as to be detrimental to any person or to the public or to endanger the health, comfort and safety of any such person or of the public, or in such manner as to cause or have a tendency to cause injury or damage to property or business.

(2.3) The burning of r u b b i s h, refuse of any kind, leaves, grass, wood, paper and/or garbage in open fires is hereby specifically prohibited, except upon special approval by the Bureau.

(2.4) No person, firm or corporation shall operate or cause to be operated, maintain or cause to be maintained, any process for any pur-

pose, or furnace or combustion device for the burning of coal or other natural or synthetic fuels, without maintaining and operating, while using said process or furnace or combustion device, recognized and approved equipment, means, method, device or contrivance to reduce the quantity of gas or air-borne solids or fumes emitted into the open air, which is operated in conjunction with said process, furnace, or combustion device so that the quantity of gas or air-borne solids shall not exceed 0.30 grains per cubic foot of the carrying medium at a temperature of 500 degrees Fahrenheit.

(a) For the purpose of determining the adequacy of such devices these conditions are to be conformed to when the percentage of excess air in the stack does not exceed 50 per cent at full load. The foregoing requirement shall be measured by the A. S. M. E. Test Code for dust-separating apparatus or by any other generally recognized standard or method of measurement which is acceptable to the Bureau.

(2.5) For the purpose of grading the density of smoke, the Ringelmann Chart, as now published and used by the United States Bureau of Mines, which is hereby made a part of this Ordinance, shall be the standard. However, the Umbrascope readings of smoke densities may be used when correlated with Ringelmann's Chart.

(a) Smoke shall be considered dense when it has a density equal to, or greater than, the density of No. 2 of said chart.

(2.6) It shall be unlawful for any person, firm, corporation, or their agents, to import, sell, offer for sale, expose for sale, exchange, deliver, or transport for use and consumption in the City of Detroit, or to use or consume in the City of Detroit any solid fuel for handfiring or intermittent feeding of surface-burning types of equipment which does not meet the standards of a smokeless solid fuel as set forth in Article 1, Section 1.35, of this Ordinance: Provided, however, That the terms "hand firing or intermittent feeding of surface-burning types of equipment" are hereby specifically declared not to include "down-draft boilers."

Provided, that the importation, delivery or transportation of such fuel by railroad companies and other common carriers, in the course of their common carrier business, shall not be deemed to be a violation of the provisions of this section.

(a) The Commissioner shall, upon request, furnish a list of brands or trade names of smokeless solid fuels, which have been tested for conformity with the provisions of this Ordinance and which as a result of such tests have been approved.

(2.7) Solid fuel not meeting the requirements of this ordinance for a smokeless solid fuel may be used or consumed only in approved mechanical combustion equipment or devices as provided in this Ordinance: Provided, That

(a) After suitable inspections and tests, have proven to the Bureau that any combination of combustion equipment or devices and fuel satisfactorily comply with the provisions of this Ordinance, the Commissioner shall approve the use of such combination of combustion equipment or devices and fuel.

(2.8) It shall be the duty of all persons purchasing combustion equipment, except repair parts and minor accessories, which is required to be connected to a vent or stack, to report to the Bureau the purchase of every such article to be installed or used anywhere within the corporate limits of the City of Detroit. The report herein provided for shall be in writing and be delivered or mailed to the Bureau within seven days after such purchase and shall contain the name and address of the purchaser and the location of the building in which each article is to be installed or used.

(a) Any person violating any of the provisions of this requirement, or making any false statement or report in connection with the purchase of any such articles mentioned in this section shall be subject to the fines and penalties hereinafter provided.

(b) This requirement shall not apply to wholesale transactions made for the purpose of resale.

(2.9) No person, firm, corporation, nor the agent or agents of such person, firm, or corportaion shall purchase or contract to purchase for use or consumption within the City of Detroit any fuel without first informing the fuel dealer as to the type of combustion equipment or device in which the fuel is to be used and the type of fuel specified for use in such combustion equipment or device under the provisions of this Ordinance.

(a) The fuel dealer's records shall indicate, among other things, the type of combustion equipment or devices and the type of fuel specified by the purchaser and supplied by the fuel dealer.

(b) No fuel dealer shall supply fuel to a purchaser that is not approved for use in the purchaser's combustion equipment or devices as herein provided.

2.10. Except in buildings used exclusively for residential purposes containing less than three dwelling units or flats, no new fuel-burning plants nor reconstruction, repair or addition to any existing fuel-burning plants for producing power and heat, or either of them, nor refuse-burning equipment, nor any stack or furnace connected with such fuel or refuse-burning equipment, shall be installed, erected, reconstructed, repaired or added to, nor operated in the City of Detroit until plans and specifications of the same have been filed by the owner, contractor, installer or other responsible person, in the offices of and approved by the Department as being so designed that same can be managed and operated to conform with the provisions of this Ordinance, and a permit issued for such installation, erection, reconstruction, addition to, or repair and operation, as hereinafter provided.

(a) Repairs to previously approved fuel or refuse-burning plants may be made without first securing a permit, provided the owner, contractor, installer or other person making or causing such repairs, shall report the same to the Bureau within three days after commencing such repairs, and shall conform to all of the provisions of this Ordinance in making such repairs.

(b) Nothing in this requirement shall be construed as to prohibit the making of emergency repairs to any stack, furnace or device when the necessity for such repair arises outside of the business hours of the Bureau; provided the owner, contractor, installer or other person permitting or making such repairs shall report the same to the Bureau on the the first business day after such emergency repairs are commenced and apply for a permit therefor.

(2.11) Plans and specifications so filed with the Department shall show the type of installation, the amount of work and the amount of heating to be done by such fuel or refuse-burning plant and all appurtenances thereto, including all provisions made for the purpose of securing complete combustion of the fuel or refuse to be used and the manner in which it is to be burned for the purpose of preventing smoke and other air pollution as provided by this Ordinance.

(a) Said plans and specifications shall also contain a statement of the rate of burning and kind of fuel or refuse proposed to be used and the manner in which it is to be burned.

(b) Such plans shall further show the dimensions of the room in which such fuel or refuse-burning equipment is to be located, the location and dimensions of all stacks used in connection with or as a part of said fuel or refuse-burning plant.

(c) The Bureau may require such additional data as is deemed necessary for the purpose of issuing a permit for the operation of such fuel-burning devices.

(2.12) Upon the inspection and approval of said plans and specifications by the Department and upon the payment of the fees hereinafter provided, and if such plans and specifications shall show that adequate and approved provisions for securing complete combustion of the fuel or refuse to be used and for preventing or eliminating smoke, soot, cinders, fly ash, noxious acids, fumes, gases or industrial dust have been made, a permit for the installation or for the construction, erection, reconstruction, repair, or addition to and operation of such fuel or refuse-burning plant shall be issued.

(a) As soon as the permit has been issued as above provided, it shall be the duty of the various other bureaus of the Department, having charge of the inspection of the premises wherein said fuel or refuse-burning equipment is located to cooperate with the said Bureau of Smoke Inspection and Abatement to see that the execution of the work so authorized by said permit shall be done in conformity with the approved plans and specifications, and the standards, rules and regulations fixed by the Department.

(2.13) If such plans and specifications as described above are not submitted to the Bureau for approval previous to the installation of any new fuel-burning plant, addition to or repair or reconstruction of any fuel-burning plant for producing power, heat, or either of them, or refuse-burning plant, or any stack connected with such fuel or refuse-burning plant, the Bureau is authorized to seal immediately such equipment until the owner, contractor, installer or other person has complied with these provisions.

(2.14) It shall be unlawful for any person to use any new, reconstructed or repaired plant or addition thereto, or any plant duly sealed under the provisions of this Ordinance, for the production and generation of heat and power, or either of them, or for the burning of refuse, until he shall have first procured a certificate from the Bureau certifying that the plant is so constructed that it will do the work required with the type of fuel and equipment used; and that, in the opinion of the head of the Bureau, it can consistently be operated in compliance with the terms of this

Ordinance, when burning the type of fuel in the manner specified in the permit, and until a notice of the size, type, kind of fuel and the manner of burning the fuel as specified in the permit has been prominently displayed and permanently attached to said plant.

(2.15) The issuance and delivery by the Bureau of any permit or certificate for the construction, reconstruction, alteration, repair, or addition thereto, of any plant or stack connected with a plant or for the operation of such plant or stack shall not be held to exempt any person, firm or corporation to whom any such permit or certificate has been issued and delivered, or who is in possession of any such permit or certificate, from prosecution on account of the emission of dense smoke, fly ash, soot, cinders, noxious acids, fumes, gases, or industrial dusts caused or permitted by any such person.

(2.16) It shall be unlawful for any person, firm or corporation to use or operate any furnace or other combustion equipment or device which is subject to annual inspection, as hereinafter set forth, without a certificate of operation; provided, however, that if application for such certificate of operation has been made and the required inspection fee paid, it shall be lawful to use such furnace or other fuel-burning equipment or device until receipt of such certificate or until notification by the Bureau of its refusal to grant such certificate.

(2.17) Every furnace or other combustion equipment or device shall be inspected annually and a report and permanent record made of such inspection by the Bureau except the following:

(1) Furnaces or other combustion equipment or devices installed to heat buildings used exclusively for private residences containing less than three dwelling units or flats, and

(2) Combustion equipment or devices used exclusively for private residences which do not contain a central heating plant.

(2.18) The Department shall not issue a building permit for the erection, construction, reconstruction or alteration of any building or structure where the plans for such building or structure show any stack in connection with such building or structure until such plans have been submitted to the Bureau and the dimensions of such stack approved as having sufficient capacity and as being suitable for the type of equipment and fuel to be used.

(2.19) The Department shall not approve plans or issue permits for the installation of any fuel-burning equipment or device of the surface-burning type unless the fuel to be used in such device shall be a smokeless solid fuel, as defined in Article 1 Section 1.35 of this Ordinance, or a mechanical fuel-burning device is to be used of a type which will so operate as not to emit dense smoke, or permit the escape of soot, cinders, noxious acids, fumes, gases, fly ash, or industrial dusts or otherwise pollute the air in violation of the provisions of this Ordinance.

(2.20) After any owner, agent, occupant, manager or lessee of any premises has been previously notified of three or more violations of this Ordinance within any consecutive 12-month period, in respect to the emission of smoke, soot, cinders, noxious acids, fumes, gases, fly ash or industrial dusts, the owner, agent, occupant, manager or lessee of said premises shall be notified to show cause before the Commissioner not less than ten days from the date of notice, why the equipment causing such violations should not be sealed.

(a) The notice herein provided for may be given by mail directed to the last known address of the party to be notified, or if said party or his whereabouts is unknown, then by posting a notice on or near the premises at which the violations shall have occurred. Upon said date said violator may appear and be heard. Upon such hearing, if the Commissioner finds that adequate corrective means and methods have not been employed to correct the cause of such condition then it shall be his duty to seal said equipment until such time as a permit and certificate as herein provided have been applied for and issued for said plant.

(b) It shall be unlawful for any person to break a seal of any refuse burning equipment, any boiler or any equipment or device producing heat or power, that has been duly sealed by the Commissioner or his authorized representative.

(2.21) When a certificate of operation is refused in the case of an original inspection or a case of an annual inspection, the Commissioner is authorized to seal, immediately, the furnace or other combustion equipment until the owner, lessee or other person required to procure the certificate of operation shall have complied with the provisions of this Ordinance.

(2.22) Where the Department finds it necessary for compliance with the applicable provisions of this Ordinance, no solid fuel burning railroad locomotive or other power equipment shall be used within the corporate limits of the City of Detroit, unless such locomotives shall be equipped with proper combustion devices or other suitable equipment.

(2.23) Where the Department finds

it necessary for compliance with the applicable provisions of this Ordinance all engine houses in which steam locomotives are repaired, serviced, cleaned, and/or housed shall be equipped with a "direct steaming" or "fuelless" system or a collector and gas washing system to prevent the visible products of combustion either from solid or liquid fuel from being expelled into the atmosphere.

(2.24) Failure on the part of any person, railroad company, corporation, association or their agents to provide the necessary means, equipment, and/or device to prevent the emission of smoke and cinders as prohibited by this Ordinance, or failure to instruct the operating crews, enginemen, firemen, hostlers or others about proper operation of said traction equipment, shall be deemed a violation of this Ordinance and shall be subject to the penalties as hereinafter provided.

(2.25) Failure of the operating crews, enginemen, firemen, hostlers or others to comply with the provisions of this Ordinance shall be deemed a violation of this Ordinance and shall be subject to the penalties as hereinafter provided.

(2.26) Railroad locomotives are hereby exempted from the provisions of the following sections of this Ordinance, 2.4, 2.8, 2.9, 2.10, 2.11, 2.12, 2.13, 2.14, 2.17, and 2.21; and furthermore, line locomotives are exempted from the provisions of Sections 2.6 and 2.7.

Sec. 2.27. Where a violator of the provisions of this Ordinance with respect to the emission of smoke, soot, cinders, noxious acids, fumes, gases, fly ash or industrial dusts produces evidence satisfactory to the Commissioner that he has taken all steps necessary to provide for future compliance with the provisions of the Ordinance but that the acquisition of the proper device or equipment cannot be effected immediately, the Commissioner shall have the authority to allow a period not exceeding six months from the effective date of the applicable provision or provisions of this Ordinance, within which the necessary device or equipment is to be acquired and installed: Provided, That a written report thereon is filed by the Commissioner with the Common Council and that body, by resolution, approves such action. During any said granted period the violator of the Ordinance shall not be subject to the fines or penalties herein provided; if, however, such violator fails in the time allowed to conform with the provisions of this Ordinance such shall be subject to all the fines and penalties herein provided dating from the date of the beginning of the said period.

(2.28) Any person aggrieved by any decision, ruling, or order of the Commissioner may take an appeal to the Board of Appeals of the Department of Buildings and Safety Engineering. Such appeal shall be taken within ten days after the decision, ruling or order complained of by filing with the Commissioner a notice of appeal directed to the Appeal Board, specifying the grounds thereof and the relief prayed for. The Commissioner shall forthwith transmit to the Appeal Board all papers constituting the record upon which the decision, ruling or order appealed from is taken. The Board shall fix a reasonable time for the hearing of the appeal and give due notice thereof by mail to the parties in interest and decide the question within a reasonable time.

(a) Such appeal shall act as a stay of any decision, ruling or order until either approved, modified or set aside by said Appeal Board. At the hearing any party may appear in person or by agent or by attorney.

(b) A fee as hereinafter specified shall be deposited with the Bureau at the time the appeal is filed, and if paid by check or money order, it shall be made payable to the Treasurer of the City of Detroit.

(c) The Board, upon hearing such appeal, shall either affirm, modify or set aside any such decision, ruling or order. The Board shall refund the fee if a decision is rendered in favor of the appellant.

(2.29) For the purpose of aiding the Commissioner in establishing Rules and Regulations and in reaching proper and just decisions on all matters pertaining to the enforcement of the provisions of this Ordinance, an Advisory Board, to be appointed by the Mayor, is hereby established.

(a) Said Board shall consist of five members, three of whom shall constitute a quorum, and all of whom will serve without compensation. One member of the Board shall be a duly registered doctor of medicine whose status as such has been unchanged for a period of at least five years previous to his appointment; one member shall be a combustion engineer whose status as such has been unchanged for a period not less than five years previous to his appointment; one member shall be an accredited coal dealer whose status as such has been unchanged for a period not less than five years previous to his appointment; one member shall be a bona fide representative of a railroad whose status as such has been unchanged for a period not less than five years previous to his appointment; there shall be one woman member whose experience has been such as to qualify her for such appointment; one member of

the Board will be designated as Chairman by the Mayor.

(b) It shall be the duty of said Board to advise the Commissioner on all rules and regulations of the Bureau; and on technical points concerned with the enforcement of the provisions of this Ordinance; but the Commissioner shall not be required to act on the advice of the Board if, in his opinion, there is good and sufficient reason to believe that such advice will not serve the best interests of the public.

(c) Meetings of the Board shall be at such times as deemed necessary by the Chairman or by the Commissioner.

(2.30). Fees for the issuance of all permits and certificates and for hearings before the Board of Appeals and inspections required under the provisions of this Ordinance shall be collected by the Bureau of Licenses and Permits of the Department. The amount of such fees shall be established by the Board of Rules of the Department and shall cover the cost of inspection and supervision resulting from the enforcement of this Ordinance, but in no case shall the installation permit fee or the hearing fee be less than two dollars ($2.00) or more than twenty ($20.00); nor the inspection fee or certificate fee less than three dollars ($3.00) or more than fifteen dollars ($15.00).

(a) The fee for the original inspection shall include the issuance of a certificate for operation in case such certificate is granted and shall be paid at the time the permit is secured.

(b) No charge shall be made for permits and/or original inspections relating to combustion equipment or devices to be installed to heat buildings used exclusively for private residences that do not contain a central heating plant.

**Article 3—(Penalties, Severability, Etc.)**

(3.1) If any clause sentence, paragraph or part of this Ordinance, or the application thereof to any person, firm, corporation or circumstances, shall for any reason be adjudged by a Court of competent jurisdiction to be unconstitutional or invalid, said judgment shall not affect, impair or invalidate the remainder of this Ordinance and the application of such provision to other persons, firms, corporations or circumstances, but shall be confined in its operation to the clause, sentence, paragraph or part thereof directly involved in the controversy in which such judgment shall have been rendered and to the person, firm, corporation or circumstances involved. It is hereby declared to be the legislative intent of this body that this Ordinance would have been adopted had such invalid provisions not been included.

(3.2) Any person, persons, firm, partnership, association or corporation or any one acting in behalf of said person, persons, firm, partnership, association or corporation violating any of the provisions of this Ordinance shall upon conviction thereof be subject to a fine of not more than one hundred dollars ($100.00) or to imprisonment in the Detroit House of Correction for a period of not more than thirty (30) days, or to both such fine and imprisonment in the discretion of the court. Each day that a violation of this Ordinance is continued or permitted to exist without compliance shall constitute a separate offense punishable upon conviction in the manner prescribed in this section.

(3.3) Any person or persons who shall refuse to comply with or who shall assist in the violation of any of the provisions of this Ordinance, or who, in any manner, hinders, obstructs, delays, resists, prevents, or in any way interferes with the Inspectional Personnel of the Bureau, or police officers in the performance of any duty herein enjoined, or shall refuse to permit such inspectors or officers to perform their duty by refusing them, or either of them entrance at reasonable hours to any premises in which the provisions of this Ordinance are being violated, or refuse to permit the inspection or examination of such building, establishment, premises or enclosures for the purpose of the enforcement of this Ordinance, shall be subject to the fines and penalties herein provided.

(3.4) Any prosecution arising from a violation of any Ordinance repealed herein, which prosecution may be pending at the time this Ordinance becomes effective, or any prosecution which may be started within one (1) year after the date of effect of this Ordinance in consequence of any violation of any Ordinance repealed herein which violation was committed previous to the date of effect of this Ordinance, shall be tried and determined exactly as if such Ordinance had not been repealed.

(3.5) All previous Ordinances, or portions of Ordinances, inconsistent with or in conflict with this Ordinance and all amendments thereto are hereby repealed.

(3.6) The Commissioner of the Department of Buildings and Safety Engineering is hereby empowered to prepare and, with the approval of the Common Council, promulgate from

time to time, rules and regulations and setting standards for stokers and other fuel-burning equipment and devices for preventing the pollution of the atmosphere and any other special requirements that may arise in conjunction with the burning of fuel or pollution of the air.

(a) Any other rulings or regulations that may be found necessary from time to time may, with the approval of the Common Council, be added or incorporated in the existing rules after being published.

(3.7) If at any time the Common Council by resolution determines that because of a scarcity of fuel there exists a public emergency involving the peace, health or safety of the people of the City of Detroit, it may also by resolution suspend the operation of any or all of the provisions of this ordinance for periods not exceeding 120 days for each such emergency.

ARTICLE 4

Work Code

(4.1) Chimneys shall be of such height as to produce sufficient available draft to supply a proper amount of air to burn smokelessly the maximum amount of fuel that is to be consumed and to overcome draft loss or restrictions in furnace, boiler setting, gas passages, damper openings, breechings, and stacks. The chimney must be of sufficient cross-sectional area to allow the free un-restricted discharge of the products of combustion.

(a) For high pressure boilers the height and dimensions of the chimney shall be figured in accordance with any acceptable formula, but, in no case shall such height and dimensions be less than that specified in Table No. 1 without specific approval of the Bureau.

(Table No. 5—Sizes of Chimneys for Steam Boilers Kent's Mechanical Engineering Handbook 11th Edition, 1945, Page 6-107.)

(b) For low pressure heating boilers the height and dimensions of the stack may be figured in accordance with any acceptable formula, but in no case shall the height and dimensions be less than that specified in Table 2 without specific approval of the Bureau.

TABLE NO. 2

Chimney Flue Dimensions

(c) No smoke stack or chimney, irrespective of the above (Sec. 4.1(a)

| BOILER RATINGS SQUARE FEET | | CHIMNEY FLUE SIZES | | CHIMNEY HEIGHT—FT. |
|---|---|---|---|---|
| Steam | Water | Round | Square | Minimum |
| 300 to 600 | 300 to 1,000 | 8" | 8"x 8" | 25' to 35' |
| 700 to 1,200 | 1,200 to 1,800 | 10" | 8"x12" | 35' to 40' |
| 1,300 to 1,800 | 2,000 to 2,800 | 12" | 12"x12" | 40' to 45' |
| 2,000 to 2,500 | 3,000 to 4,000 | 15" | 12"x16" | 40' to 45' |
| 3,000 to 3,500 | 4,800 to 5,600 | 16" | 16"x16" | 45' to 50' |
| 4,000 to 4,500 | 6,400 to 7,200 | 18" | 16"x20" | 45' to 50' |
| 4,500 to 5,000 | 7,200 to 8,000 | 20" | 16"x20" | 50' to 55' |
| 5,000 to 5,500 | 8,000 to 8,800 | 20" | 20"x20" | 50' to 55' |
| 5,500 to 6,000 | 8,800 to 9,600 | 20" | 20"x20" | 55' to 60' |
| 6,000 to 6,500 | 9,600 to 10,000 | 22" | 20"x20" | 55' to 60' |
| 6,500 to 7,000 | 10,400 to 12,000 | 24" | 20"x24" | 60' to 65' |
| 7,000 to 8,000 | 12,000 to 12,800 | 24" | 20"x24" | 65' to 70' |
| 8,000 to 9,000 | 12,800 to 14,400 | 26" | 24"x24" | 70' to 75' |
| 9,000 to 10,250 | 14,400 to 16,800 | 28" | 24"x28" | 75 to 80' |
| 10,250 to 12,750 | 16,800 to 20,400 | 28" | 24"x28" | 80 to 85' |
| 12,750 to 15,600 | 20,400 to 25,000 | 30" | 24"x28" | 85' to 90' |
| 15,600 to 18,000 | 25,000 to 28,800 | 32" | 28"x28" | 90' to 100' |
| 18,000 to 20,400 | 28,800 to 32,640 | 32" | 30"x30" | 100' to 110' |

(From the Association of Radiator Mfrs. Lab., Geneva, N. Y.)

and (b), shall be installed with less cross-sectional area or with less than those recommended by the manufacturers of the boiler or boilers connected thereto.

(d) No smoke stack or chimney shall have openings other than for the breeching or breechings for the boiler, boilers or combustion equipment served and a clean-out door.

(e) All incinerator stacks and any other chimney, smoke stack or flue which emits sparks in sufficient amount or size to cause a hazard to buildings or surrounding property shall be equipped with a spark arrester of proper size and construction to prevent the emission of such dangerous sparks.

(f) All stacks and chimneys and parts thereof or appurtenances thereto shall be constructed in accordance with the provisions of Article 22 of the Official Building Code of the City of Detroit.

(g) The Department may grant

## Table No. 1—Sizes of Chimneys for Steam Boilers*
### Based on Kent Chimney Formula (11)

| Diam., in. | Area A, sq. ft. | Effective Area, E. A-O.6VA sq. ft. | Height of Chimney, ft. 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 125 | 150 | 175 | 200 | 225 | 250 | 275 | 300 | 325 | 350 | 375 | 400 | Equivalent Square Chimneys, Side of Square in. (12 VE) -4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Commercial Horsepower of Boiler | | | | | | | | | | | | | | | | | | | | |
| 18 | 1.77 | 0.97 | 21 | 23 | 25 | 27 | 29 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 16 |
| 21 | 2.41 | 1.47 | 31 | 35 | 38 | 41 | 44 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 19 |
| 24 | 3.14 | 2.08 | 44 | 49 | 54 | 58 | 62 | 66 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 22 |
| 27 | 3.98 | 2.78 | 59 | 65 | 72 | 78 | 83 | 88 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 24 |
| 30 | 4.91 | 3.58 | .... | 84 | 92 | 100 | 107 | 113 | 119 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 27 |
| 33 | 5.94 | 4.48 | .... | .... | 115 | 125 | 133 | 141 | 149 | 156 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 30 |
| 36 | 7.07 | 5.47 | .... | .... | 141 | 152 | 163 | 173 | 182 | 191 | 204 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 32 |
| 39 | 8.30 | 6.57 | .... | .... | ..... | 183 | 196 | 208 | 219 | 229 | 245 | 268 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 35 |
| 42 | 9.62 | 7.76 | .... | .... | ..... | 216 | 231 | 245 | 258 | 271 | 289 | 316 | 342 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 38 |
| 48 | 12.57 | 10.44 | .... | .... | ..... | ..... | 311 | 330 | 348 | 365 | 389 | 426 | 460 | 492 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 43 |
| 54 | 15.90 | 13.51 | .... | .... | ..... | ..... | ..... | 427 | 449 | 472 | 503 | 551 | 595 | 636 | 675 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 48 |
| 60 | 19.64 | 16.98 | .... | .... | ..... | ..... | ..... | 536 | 565 | 593 | 632 | 692 | 748 | 800 | 848 | 894 | 938 | ..... | ..... | ..... | ..... | ..... | 54 |
| 66 | 23.76 | 20.83 | .... | .... | ..... | ..... | ..... | ..... | 694 | 728 | 776 | 849 | 918 | 981 | 1040 | 1097 | 1150 | 1201 | ..... | ..... | ..... | ..... | 59 |
| 72 | 28.27 | 25.08 | .... | .... | ..... | ..... | ..... | ..... | 835 | 876 | 934 | 1023 | 1105 | 1181 | 1253 | 1320 | 1385 | 1447 | 1506 | ..... | ..... | ..... | 64 |
| 78 | 33.18 | 29.73 | .... | .... | ..... | ..... | ..... | ..... | ..... | 1038 | 1107 | 1212 | 1310 | 1400 | 1485 | 1565 | 1642 | 1715 | 1785 | 1852 | ..... | ..... | 70 |
| 84 | 38.48 | 34.76 | .... | .... | ..... | ..... | ..... | ..... | ..... | 1214 | 1294 | 1418 | 1531 | 1637 | 1736 | 1830 | 1920 | 2005 | 2087 | 2166 | 2241 | ..... | 75 |
| 90 | 44.18 | 40.19 | .... | .... | ..... | ..... | ..... | ..... | ..... | ..... | 1496 | 1639 | 1770 | 1893 | 2008 | 2116 | 2219 | 2318 | 2413 | 2504 | 2592 | 2677 | 80 |
| 96 | 50.27 | 46.01 | .... | .... | ..... | ..... | ..... | ..... | ..... | ..... | 1712 | 1876 | 2027 | 2167 | 2298 | 2423 | 2541 | 2654 | 2762 | 2866 | 2967 | 3064 | 86 |
| 102 | 56.75 | 52.23 | .... | .... | ..... | ..... | ..... | ..... | ..... | ..... | 1944 | 2130 | 2300 | 2459 | 2609 | 2750 | 2884 | 3012 | 3136 | 3254 | 3368 | 3479 | 91 |
| 108 | 63.62 | 58.83 | .... | .... | ..... | ..... | ..... | ..... | ..... | ..... | 2090 | 2399 | 2592 | 2771 | 2939 | 3098 | 3249 | 3393 | 3532 | 3665 | 3794 | 3918 | 96 |
| 114 | 70.88 | 65.83 | .... | .... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2685 | 2900 | 3100 | 3288 | 3466 | 3635 | 3797 | 3952 | 4101 | 4245 | 4384 | 101 |
| 120 | 78.54 | 73.22 | .... | .... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2986 | 3226 | 3448 | 2657 | 3855 | 4043 | 4223 | 4396 | 4562 | 4722 | 4876 | 107 |
| 132 | 95.03 | 89.18 | .... | .... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 3637 | 3929 | 4200 | 4455 | 4696 | 4925 | 5144 | 5354 | 5556 | 5751 | 5939 | 117 |
| 144 | 113.10 | 106.72 | .... | .... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 4352 | 4701 | 5026 | 5331 | 5618 | 5893 | 6155 | 6407 | 6649 | 6882 | 7108 | 128 |
| 156 | 132.73 | 125.82 | .... | .... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 5542 | 5925 | 6285 | 6624 | 6948 | 7264 | 7553 | 7838 | 8114 | 8380 | 138 |
| 168 | 153.94 | 146.51 | .... | .... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 6454 | 6899 | 7318 | 7713 | 8091 | 8459 | 8795 | 9127 | 9448 | 9758 | 150 |
| 180 | 176.71 | 168.76 | .... | .... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 7434 | 7947 | 8430 | 8886 | 9318 | 9734 | 10131 | 10514 | 10883 | 11240 | 160 |
| 192 | 201.06 | 192.55 | .... | .... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 8482 | 9068 | 9618 | 10138 | 10633 | 11106 | 11559 | 11996 | 12417 | 12824 | 172 |
| 204 | 226.98 | 217.94 | .... | .... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 10263 | 10886 | 11475 | 12035 | 12570 | 13083 | 135[illegible] | 14054 | 14515 | 181 |
| 216 | 254.47 | 244.90 | .... | .... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 11533 | 12233 | 12894 | 13524 | 14125 | 14702 | 1525[illegible] | 15792 | 16310 | 192 |
| 228 | 283.53 | 273.43 | .... | .... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 13658 | 14397 | 15099 | 15771 | 16414 | 17034 | 17632 | 18210 | 202 |
| 240 | 314.16 | 303.53 | .... | .... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 15161 | 15981 | 16761 | 17507 | 18222 | 18909 | 19573 | 20215 | 213 |

*Calculated on basis of 1 Boiler Horsepower equal 5 lb. of coal burned per hour. For any other rate of combustion multiply the value in the table by the ratio of 5 to the actual rate of combustion.

permission for the construction and use of stacks or chimneys for use with combustion equipment or devices using gaseous or liquid fuels or a combination of such fuels without strict compliance with Paragraphs (a) and (b) of this section (4.1); provided, (1) such stacks or chimneys cannot immediately or at any time be used with solid fuel burning equipment in such manner as to violate the provisions of this Ordinance, and that (2) such stacks or chimneys shall otherwise comply with the provisions of this Ordinance.

(4.2) Where the Department finds it necessary for compliance with applicable provisions of this Ordinance, all incinerators shall be equipped with gas washing devices, settling chambers, or other approved devices for the elimination of the nuisance.

(4.3) Breechings of all boilers or fuel-burning devices shall be of sufficient cross-sectional area as to prevent excessive gas velocity and to defeat the obtaining of complete combustion; and shall have a minimum number of bends and turns.

(4.4) Induced draft fans may be used where necessary or desirable, provided the requirements concerning stack or chimney size and height are observed in accordance with the provisions herein specified.

(a) Cases involving the use of Venturi stacks and other stacks or chimneys not deemed to be within the coverage of this Code shall be decided upon their merits and the Commissioner may grant approval for the use of such stacks or chimneys.

(4.5) Tube areas and gas passages through heating surfaces shall be of sufficient area to permit of the ordinary accumulation of soot and fly ash without such restriction to draft as would interfere with smokeless operation of the fuel-burning equipment. Sufficient means must be provided for the removal of soot, fly ash, dust, and cinders from the heating surfaces, tube region, and gas passages. Baffles must be of such design and so installed and maintained as to not interfere with smokeless combustion due to the impigning of flame on heating surfaces where such impingement would result in reduction of temperature below the ignition point of the combustible gas.

(4.6) Furnace Volume requirements for coal, fuel oil, pulverized coal, wood-refuse, horizontal boilers shall be as follows:

(a) A steam boiler furnace or other furnace using hand-method of firing shall be provided with a furnace volume of not less than 1 cu. ft. combustion volume for each rated horsepower or for each 140 sq. ft. equivalent direct radiation capacity.

(b) Mechanical stokers shall be provided with a furnace volume of not less than 1 cu. ft. per rated horsepower.

(c) Furnaces using fuel oil shall be provided with a furnace volume of not less than 1.50 cu. ft. per rated horsepower or for each 140 sq. ft. equivalent direct radiation.

(d) Furnaces using pulverized coal shall have not less than 3 cu. ft. furnace volume per rated horsepower.

(e) Wood-refuse burning boilers or furnaces shall maintain a furnace volume of from 6 to 10 cu. ft. per rated horsepower.

(f) Refuse-burners and destructor type of incinerators shall maintain a furnace volume of 1 cu. ft. per sq. ft. grate surface.

(4.7) Horizontal return tubular boilers not equipped with mechanical stokers shall be so set as to provide adequate combustion facilities, and in no case shall the distance from shell

**TABLE 4**

**Setting Heights for Stoker Equipped Boilers**

**Min.—Absolute minimum** **P.M.—Preferred minimum**

| Type of Boiler | TYPE OF STOKER: Multiple Retort Underfeed | | Single Retort Underfeed | | Side Overfeed | | Front Overfeed | | Chain Grates | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Min. | P.M. | Min. | P.M. | Min. | P.M. | Min. | P.M. | Min. | P.M. |
| **Water Tube:** | | | | | | | | | | |
| Horizontal | 10' | 12' | 10' | 12' | 8' | 10' | 8' | 11' | 8' | 10' |
| Inclined (Hor. M. D.) | 7' | 8' | 6' | 8' | 6' | 8' | 5' | 7' | 6' | 8' |
| Inclined (Vert. M. D.) | 5' | 8' | 5' | 6' | 3'6" | 5' | 3'6" | 5' | 3'6" | 5' |
| Vertical (Hor. M. D.) | 3' | 4' | 3' | 4' | 3' | 4' | 3' | 4' | 3' | 4' |
| Vertical (Vert. M. D.) | | | | | | | | | | |
| 150 h. p. | 4'6" | 6' | 4'6" | 5' | 4'6" | 5' | 3'3" | .... | 3'6" | 4'6" |
| 250 h. p. | 5'6" | 6' | 5'6" | 6' | 5'6" | 6' | 3'3" | .... | 3'6" | 4'6" |
| 500 h. p. | 6' | 6'6" | 6' | 6'6" | 6' | 6'6" | 3'3" | .... | 3'6" | 4'6" |
| **Horizontal Ret. Tubular:** | | | | | | | | | | |
| 72 in. | 8' | 10' | 8' | 10' | 7' | 10' | 7' | 8' | 6' | 8' |
| 84 in. | 8' | 10' | 8' | 10' | 7' | 10' | 7' | 8' | 6' | 8' |

| Type of Boiler | Chain Grates | |
|---|---|---|
| | Min. | P.M. |
| **Water Tube:** | | |
| Horizontal | 12' | 14' |
| Inclined (Hor. M. D.) | 8' | 8' |
| Inclined (Vert. M. D.) | 6' | 8' |
| Vertical (Hor. M. D.) | 3' | 4' |
| Vertical (Vert. M. D.) | | |
| 150 h. p. | 5' | 5'6" |
| 250 h. p. | 5' | 5'6" |
| 500 h. p. | 6' | 6'6" |
| **Horizontal Ret. Tubular:** | | |
| 72 in. | 8' | 10' |
| 84 in. | 8' | 10' |

to grate be less than specified in Table 3.

TABLE 3

| Boiler Diameter | Distance Shell to grate |
|---|---|
| 84" | 72" |
| 78" | 72" |
| 72" | 60" |
| 66" | 60" |
| 60" | 54" |
| 54" | 48" |
| 48" | 48" |
| 36" | 36" |

(4.8) Power boilers equipped with stokers shall be set in accordance with the minimum dimensions found in Table 4.

(4.9) Forced draft fans may be used provided suitable arrangements are made for the prevention of the emission of soot, cinders, and fly ash.

(4.10) Use and Installation of Air Jets. All high pressure boilers using solid fuel and not equipped with mechanical stokers or provisions for using pulverized fuel shall have at least one air jet for each 200 sq. ft. H. S. or fraction thereof. In no case shall there be less than two air jets. The jets shall be installed at or under the direction of an inspector of the Bureau of Smoke Inspection and Abatement of the Department of Buildings and Safety Engineering.

(a) Where it is impossible, due to construction, to equip a boiler and furnace with air jets, it will be necessary to install mechanical stokers on all boilers having more than 200 sq. ft. H. S. or 2,500 sq. ft. equivalent direct radiation.

(4.11) Every owner, agent, or lessee of every boiler plant within the corporate limits of the City of Detroit, except those using gas fuel and/or electricity and excepting coal-burning boilers of 20 horsepower or 2,500 sq. ft. of equivalent direct radiation or less, shall provide means whereby the fireman or engineer or the person firing the boiler may be enabled to know without leaving the boiler or furnace room whether or not dense smoke is being emitted from the chimney or stack, so that the necessary correction may be made at the time. Such means of observation shall consist of one of the following:

(a) A window or other opening through which unobstructed view of the top of the stack may be had from the boiler or furnace room.

(b) A mirror or series of mirrors so placed as to reflect the top of the stack and be visible from the boiler or furnace room.

(c) A smoke indicator as approved by the Bureau of Smoke Inspection and Abatement of the Department of Buildings and Safety Engineering.

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THOMAS D. LEADBETTER,
City Clerk.

(Complete through Oct. 16, 1947

# INDEX TO ARTICLES


| Title | Articles |
|---|---|
| ADMINISTRATION | 2 |
| DEFINITIONS | 1 |
| PENALTIES, SEVERABILITY, Etc. | 3 |
| WORK CODE | 4 |


## ALPHABETICAL INDEX


| Title | Section No. | Page No. |
|---|---|---|
| Acids (noxious) | 1.27 | 2 |
| Authority | 2.1 | 4 |
| Baffling | 1.3 | 1 |
| Board | | |
| Advisory | 2.29 | 8 |
| Appeals | 1.4 | 1 |
| | 2.28 | |
| Boilers (horizontal, return, tubular) | 4.7 | 12 |
| Table 3 | | 13 |
| Breeching | 1.5 | 1 |
| Requirements | 4.3 | 12 |
| Bridgewall | 1.6 | 1 |
| Bureau | 1.7 | 1 |
| Certificate of Operation | | |
| Display of | 2.14 | 6-7 |
| Refusal of | 2.21 | 7 |
| Requirements for | 2.14 | 6 |
| Where required | 2.16 | 7 |
| Chimney (See Stacks) | | |
| Cinders | 1.9 | 1 |
| Collectors | 1.15 | 1 |
| Permits for | 2.12 | 6 |
| Required | 2.4 | 4-5 |
| Test of | 2.4(a) | 5 |
| Combustion Arch | 1.43 | 4 |
| Combustion Equipment | | |
| Annual Inspection | 2.17 | 7 |
| Approval of | 2.9(b) | 5 |
| Definition | 1.11 | 1 |
| Fuel for | 2.9 | 5 |
| Installation and repair | 2.10 | 6 |
| Mechanical | 1.26 | 2 |
| Permits for | 2.12 | 6 |
| Plans required | 2.11 | 6 |
| Purchasing | 2.8 | 5 |
| Record of | 2.9(a) | 5 |
| Sealing | 2.13 | 6 |
| Surface burning type | 1.39 | 4 |
| Use of | 2.14 | 6 |
| | 2.16 | 7 |
| Commissioner | 1.12 | 1 |
| Authority | 3.6 | 9-10 |
| Damper | 1.13 | 1 |
| Department | 1.14 | 1 |
| Dusts | | |
| Industrial (Also see pollutants) | 1.24 | 2 |
| Dutch oven | 1.16 | 1 |
| Extension furnace (See Dutch oven) | | |
| Fans | | |
| Forced draft | 4.9 | 13 |
| Induced draft | 4.4 | 12 |
| Fees | 2.30 | 9 |
| Fire | | |
| Cleaning | 1.10 | 1 |
| Open (def.) | 1.29 | 2 |
| (prohibited) | 2.3 | 4 |
| Kindling | 1.25 | 2 |
| Fly Ash | 1.18 | 2 |
| Test for | 2.4(a) | 4-5 |
| Quantity allowed (Also see pollutants) | 2.4 | 5 |
| Fuel | | |
| Dealer (def.) | 1.19 | 2 |
| Responsibility | 2.9 | 5 |
| Delivery of | 2.6 | 5 |
| Emergency | 3.7 | 10 |
| Sale of | 2.6 | 5 |
| Solid | 1.36 | 4 |
| Equipment for | 2.7 | 5 |
| Smokeless solid | 1.35 | 3-4 |
| Fuel Burning Plants (See Combustion Equipment) | | |
| Fumes (def.) | 1.20 | 2 |
| (See pollutants) | | |
| Furnace volume | 1.21 | 2 |
| Requirements | 4.6 | 12 |
| Gases | 1.22 | 2 |
| Heating Surfaces | 1.23 | 2 |
| Incinerators | 4.2 | 12 |
| (See Combustion Equipment) | | |
| Indicator (Smoke) | 1.34 | 3 |
| | 4.11 | 13 |
| Inspection | | |
| Annual | 2.17 | 7 |
| Original | 2.21 | 7 |
| Jets (Air) | 1.1 | 1 |
| Requirements | 4.10 | 13 |
| Locomotives | | |
| Engine houses | 2.23 | 8 |
| Equipment for | 2.22 | 7 |
| | 2.24 | 8 |
| Exemptions | 2.26 | 8 |
| Violations | 2.25 | 8 |
| Oil Burners | 1.28 | 2 |
| Penalties | 3.2 | 9 |
| | 3.3 | 9 |
| | 2.20 | 7 |
| Permits | | |
| For Combustion Equipment | 2.12 | 6 |
| Limitations of | 2.15 | 7 |
| Person | 1.30 | 2 |
| Pollutants Prohibited | 2.1 | 4 |
| | 2.2B | 4 |
| Emission of | 2.4 | 4-5 |
| Elimination of | 2.12 | 6 |
| Pollution | | |
| Atmospheric | 1.2 | 1 |
| Repairs | 1.31 | 2 |
| Emergency | 2.10 | 6 |
| Repeal of previous ordinances | 3.5 | 9 |
| Ringlemann Chart | 1.32 | 2 |
| Authority for use | 2.5 | 5 |
| Saving Clause of Ordinance | 3.1 | 9 |
| Smoke | | |
| Definition | 1.33 | 3 |
| Grading of | 2.5 | 5 |
| Permissible | 2.2A(a) | 4 |
| | 2.2A(b) | 4 |
| Unlawful | 2.1 | 4 |
| | 2.2A | 4 |
| Soot (See Pollution) | 1.37 | 4 |
| Stacks | 1.8 | 1 |
| Plans for | 2.11(b) | 6 |
| Requirements for | 2.18 | 7 |
| | 4.1 | 10 |
| Tables | | 11 |
| | | 12 |
| 1 | | 11 |
| 2 | | 10 |
| Venturi | 4.4(a) | 12 |
| Visibility of | 4.11 | 13 |
| Stokers (See Furnace Volume) | | |
| Tubes | | |
| Fire | 1.17 | 2 |
| Requirements | 4.5 | 12 |
| Water | 1.42 | 4 |
| Umbrascope | 1.40 | 4 |
| Authority for use | 2.5 | 5 |
| Violations | | |
| Appeal | 2.28 | 8 |
| Number of | 2.20 | 7 |
| Probationary period | 2.27 | 8 |
| Volatile Matter | 1.35 | 3 |
| | 1.41 | 4 |
| Wing Wall | 1.43 | 4 |

## ENDORSEMENTS OF CHANGE OF MASTER

t of Alpena, Mich May 7, 19 55

James M Burke, having taken the oath
uired by law, is at present master of the within-named vessel.

[illegible] Deputy Collector of Customs.

t of [illegible] 19

[illegible] having taken the oath
quired by law, is at present master of the within-named vessel.

[illegible] Deputy Collector of Customs.

rt of Alpena Mich 5/20, 19 55

James M Burke, having taken the oath
quired by law, is at present master of the within-named vessel.

[illegible] Deputy Collector of Customs.

rt of [illegible] 19

[illegible], having taken the oath
quired by law, is at present master of the within-named vessel.

[illegible] Deputy Collector of Customs.

rt of [illegible] 8/18, 19 55

[illegible], having taken the oath
quired by law, is at present master of the within-named vessel.

[illegible] Deputy Collector of Customs.

rt of Detroit Michigan, March 20, 1957

Angus Bain Mac Queen, having taken the oath
quired by law, is at present master of the within-named vessel.

O.O. Goodwin
Deputy Collector of Customs.

(7)
Port of Alpena Mich 6/25, 19 57

James M Burke, having taken the oath
required by law, is at present master of the within-named vessel.

[illegible] Deputy Collector of Customs.

(8)
Port of [illegible], 19

[illegible], having taken the oath
required by law, is at present master of the within-named vessel.

[illegible] Deputy Collector of Customs.

(9)
Port of [illegible], 19

[illegible], having taken the oath
required by law, is at present master of the within-named vessel.

[illegible] Deputy Collector of Customs

(10)
Port of [illegible], 19

[illegible], having taken the oath
required by law, is at present master of the within-named vessel.

[illegible] Deputy Collector of Customs.

(11)
Port of [illegible], 19

[illegible], having taken the oath
required by law, is at present master of the within-named vessel.

[illegible] Deputy Collector of Customs.

(12)
Port of [illegible], 19

[illegible], having taken the oath
required by law, is at present master of the within-named vessel.

[illegible] Deputy Collector of Customs.

## ENDORSEMENTS OF RENEWAL

Renewal No. 1. Port of Detroit, Michigan
The within-described LICENSE is hereby renewed for ONE YEAR
from March 20, 19 56

[Seal] O.O. Goodwin
Acting Deputy Collector of Customs.

Renewal No. 2. Port of Detroit, Michigan
The within-described LICENSE is hereby renewed for ONE YEAR
from March 20 1957

[Seal] O.O. Goodwin
Deputy Collector of Customs.

Renewal No. 3. Port of [illegible]
The within-described LICENSE is hereby renewed for ONE YEAR
from [illegible], 19

[Seal] [illegible]
Deputy Collector of Customs.

Renewal No. 4. Port of [illegible]
The within-described LICENSE is hereby renewed for ONE YEAR
from [illegible], 19

[Seal] [illegible]
Deputy Collector of Customs.

Renewal No. 5. Port of [illegible]
The within-described LICENSE is hereby renewed for ONE YEAR
from [illegible], 19

[Seal] [illegible]
Deputy Collector of Customs.

Renewal No. 6. Port of [illegible]
The within-described LICENSE is hereby renewed for ONE YEAR
from [illegible], 19

[Seal] [illegible]
Deputy Collector of Customs

VESSEL S. T. CRAPO
OFFICIAL No. 226885
GROSS TONS 4,769

[fol. 54]

PLAINTIFF'S EXHIBIT 2

Treasury Department
U. S. Coast Guard
CG-841 (Rev. 9-53)

File No. FS

Jan 10 1957
Donald E. Miller
Official Court Reporter
3rd Judicial Circuit

This Certificate Expires
21 March, 1957

UNITED STATES OF AMERICA
TREASURY DEPARTMENT
UNITED STATES COAST GUARD

---

CERTIFICATE OF INSPECTION

VESSEL S. T. CRAPO OFFICIAL No. 226885
CLASS Freight TONS: GROSS 4,769 NET 2,942 LENGTH 392.5'
HOME PORT Detroit, Michigan OWNERS Huron Portland Cement Co.
OPERATORS Huron Portland Cement Co. 1325 Ford Bldg., Detroit 26, Mich.

The inspection of the above-named vessel having been completed at Ecorse, Michigan on the 21st day of March, 1956, I hereby CERTIFY that the said vessel was built at River Rouge in the State of Michigan, in the year 1927, rebuilt in the year .....; that the hull is constructed of Steel; is provided with ..... staterooms, ..... berths; that the said vessel at the date hereof is in all things in conformity with the applicable vessel inspection laws and the rules and regulations prescribed thereunder; and is al-

lowed to carry ..... passengers, 5 persons in addition to the crew.

The following complement of licensed officers and crew is required to be carried, included in which there must be 3 certificated lifeboatmen:

| | | |
|---|---|---|
| 1 Master & Pilot | .....Second Mate | 6 Able Seamen |
| 2 1st Class Pilots | .....Third Mate | 3 Ordinary Seamen |
| 1 2d Class Pilot | .....Inland Mate | .....Watchmen |
| .....Chief Mate | .....Radio Officer | .....Deckhands |

| | |
|---|---|
| 1 Chief Engineer | 6 Firemen |
| 1 1st Assistant Engineer | 3 Oilers |
| 1 2d Assistant Engineer | .....Motorboat Operators |
| 1 3d Assistant Engineer | 3 Coal Passers |

and also may carry 12 persons when needed in the steward's and other departments not connected with the navigation of the vessel. Total number of persons allowed 46.

When this vessel is navigated on routes of less than 16 hours on Lake Ontario, only 2 of the licensed deck officers specified are required to hold license as pilot covering the waters of Lake Ontario.

The said vessel is permitted to be navigated for one year on the Great Lakes

[fol. 59] Clerk's Certificate to foregoing transcript (omitted in printing).

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[fol. 60]

SUPREME COURT OF THE UNITED STATES

No. 86, October Term, 1959

---

HURON PORTLAND CEMENT COMPANY, ETC., Appellant,

vs.

CITY OF DETROIT, ETC., et al.

---

Appeal from the Supreme Court of the State of Michigan.

ORDER NOTING PROBABLE JURISDICTION—October 12, 1959

The statement of jurisdiction in this case having been submitted and considered by the Court, probable jurisdiction is noted.

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[fol. 33]

DATA, PARTICULARS OF EQUIPMENT AND PERIODIC EXAMINATIONS

| | |
|---|---|
| .....Wooden lifeboats for .....persons | 5 Fire extinguishers, Class A II |
| 2 Metal lifeboats for 50 persons | 3 Fire extinguishers, Class B II |
| .....Motor lifeboats for .....persons | 2 Fire extinguishers, Class C I |
| .....Working boats for .....persons | .....Fire extinguishers, Semi-portable Class ..... |
| 1 Liferafts for 15 persons | 4 Fire extinguishers, Fixed steam 1 dry CH, 3 FL |
| .....Buoyant apparatus for .....persons | 8 Fire axes |
| 46 Life preservers, adult's | 2 Fire pumps |
| .....Life preservers, children's | Fire hose, total length 300 ft. |
| .....Wood floats | Inspected and approved for the carriage of inflammable or combustible liquids of grade ..... |
| .....type, line-throwing apparatus | ..... |
| 9 Ring Buoys | Capacity in barrels ..... |
| 9 Luminous Ring Buoys | |
| 2 Anchors | |
| 2 Cables | |

| | |
|---|---|
| Stability letter issued ....., 19..... | Main Boilers |
| Date drydocked 24 Feb. 1953 | Number 3 Year built 1927 |
| Propelled by steam | Mfr. Manitowoc Boiler Wks. |
| Tail shaft drawn — | Minimum efficiency of weakest longitudinal section 84.67 per cent |
| Horsepower 1800 | |
| Pressure vessels examined 21 Mar. 1956 | Record in Office at Detroit, Mich. |
| Blr. shells drilled 28 Feb. 1950, thk 1.23" | Mountings opened 23 Jan. 1953 |
| | Length blr. 11' |
| Fuel coal | Mountings removed 23 Jan. 1953 |
| Main steam line measured 10 Jan. 1956, thk. .276" | Diameter blr. 153" |
| | Date hydrostatic pressure applied 21 Dec. 1955 & 10 Jan. 1956 |
| Aux. piping over 3" dia. tested 21 Dec. 1955 | Maximum steam pressure allowed 185# |

Kalhjorn Hansen
Commander, USCG (Officer in Charge,
Marine Inspection)
Detroit, Mich.

Customs Form 1270
TREASURY DEPARTMENT
[illegible]
June 1944

✓ Plaintiff's Exhibit A (p. 43)

| PERMANENT OR TEMPORARY | |
|---|---|
| Permanent | |
| CERTIFICATE No. | 30 |

# THE UNITED STATES OF AMERICA

| OFFICIAL No. | TONNAGE (GROSS AND NET) |
|---|---|
| 223376 | 6251 |

TREASURY DEPARTMENT
BUREAU OF CUSTOMS

Measured at Toledo, Ohio ..... 1923
Rebuilt at Detroit, Michigan ..... 1928
Remeasured at Detroit, Michigan ..... 1928
Remeasured at Detroit, Michigan 1953

Service Freight
Number of crew, INCLUDING master 36
Horsepower 1500
Coal burner

# Consolidated Certificate of Enrollment and License

(NORTHERN, NORTHEASTERN, AND NORTHWESTERN FRONTIERS OF THE UNITED STATES, OTHERWISE THAN BY SEA)

*In Conformity to Title L, "Regulation of Vessels in Domestic Commerce," of the Revised Statutes of the United States*

WILLIAM E. CRAPO, of 254 Touraine Rd., Grosse Pointe, Michigan, SECRETARY

*having taken and subscribed the oath* [illegible] *required by law, and having sworn* [illegible] *that*

Huron Portland Cement Company

Incorporated under the laws of the State of Michigan

With offices at 1325 Ford Building, Detroit 26, Michigan

EXH. A

FEB 26 1957

DONALD E. MILLER
OFFICIAL COURT REPORTER
6th JUDICIAL CIRCUIT

(75 percent of the interest in the corporation owning this vessel is owned by citizens of the United States. It may engage in the coastwise trade so long as so owned and no longer.)

this vessel is owned by citizens of the United States. It may engage in the coastwise trade so long as so owned and no longer.)

I S A

[1] citizen of the United States and the sole owner of the vessel called the

[2] JOHN W. BOARDMAN (Name of vessel), of Detroit, Michigan (Home port)

and that the said vessel was built in the year [3] 1923, at Toledo, Ohio, of [4] steel

as appears by [5] P.F.R. NO. 19 issued at Detroit, Michigan, March 24, 1953. NOW SURRENDERED; "PROPERTY CHANGED."

and [6] said enrollment having certified that

the said vessel is a [10] steam screw; that she has one deck, two masts, a straight stem, and a round stern; that her register length is 340.6 tons feet, her register breadth 55.1 tons feet, her register depth 25.0 tons feet, her height tons feet; that she measures as follows: [11]

| | | TONS | 100ths |
|---|---|---|---|
| Capacity under tonnage deck | | 3571 | 31 |
| Capacity between decks above tonnage deck | | | |
| Capacity of enclosures on the upper deck, viz: Forecastle 91.36, bridge; poop; break | | | |
| houses—deck 174.23, side, chart 1.31, radio; excess hatchways; light and air | | 266 | 90 |
| | GROSS TONNAGE | 3838 | 21 |

Deductions under Section 4153, Revised Statutes, as amended (Section 77, title 46, United States Code):

| | | | | | |
|---|---|---|---|---|---|
| Crew space | 153.60 | Master's cabin | 28.38 | | |
| Steering gear | 10.80 | Anchor gear | 7.33 | Boatswain's stores | 10.85 |
| Chart house | 1.31 | Donkey engine and boiler | | Radio house | |
| Storage of sails | | Propelling power (actual space 492.67) | | X 1.75% = 862.17 | |

| | | 100ths |
|---|---|---|
| | TOTAL DEDUCTIONS | 1074 44 |
| | NET TONNAGE | 2763 |

The following-described spaces, and no others, have been omitted, viz: Forepeak 180.51, afterpeak 19.22, other spaces (except double bottoms) for water ballast 211.30, open forecastle, open bridge, open poop, open shelter deck, cabins 14.49, companions 2.08, galley 10.92, skylights 4.35, wheelhouse 19.47, water-closets 43.82, anchor gear 4.63, condenser, donkey engine and boiler, steering gear, light and air spaces 66.45, other machinery spaces 31.36,

And [11] having agreed to the description and measurement above specified, the said vessel has been duly ENROLLED at this PORT:

## LICENSE

And William H. Crapo, the master, having sworn that he is a citizen of the United States, that this license shall not be used for any other vessel, or for any other employment than is herein specified, or in any trade or business whereby the revenue of the United States may be defrauded:

LICENSE is hereby granted for the said vessel to be employed in carrying on the COASTING AND FOREIGN TRADE for ONE YEAR from the date hereof, and no longer.

her register length is 2[illegible].0 [illegible] feet, her register breadth [illegible] feet, her register depth 22.0 feet,
her height [illegible] feet; that she measures as follows: [11]

| | TONS | |
|---|---|---|
| Capacity under tonnage deck | 3571 | 31 |
| Capacity between decks above tonnage deck | | |
| Capacity of enclosures on the upper deck, viz: Forecastle 91.36 ; bridge ; poop ; break | | |
| houses—deck 174.23 , side , chart 1.31 , radio ; excess hatchways ; light and air | 266 | 90 |
| GROSS TONNAGE | 3838 | 21 |

Deductions under Section 4153, Revised Statutes, as amended (Section 77, title 46, United States Code):

| | | | |
|---|---|---|---|
| Crew space 153.60 | Master's cabin 28.38 | | |
| Steering gear 10.80 | Anchor gear 7.33 | Boatswain's stores 10.85 | |
| Chart house 1.31 | Donkey engine and boiler | Radio house | |
| Storage of sails | Propelling power (actual space 492.67 ) X 1.75% = 862.17 | | |
| | TOTAL DEDUCTIONS | | 1074 44 |
| | NET TONNAGE | | 2763 |

The following-described spaces, and no others, have been omitted, viz: Forepeak 180.51 , afterpeak 19.22 , other spaces (except double bottoms) for water ballast 211.30 , open forecastle , open bridge , open poop , open shelter deck , cabins 14.49 companions 2.08 , galley 10.92 , skylights 4.35 , wheelhouse 19.47 , water-closets 43.82 , anchor gear 4.63 , condenser , donkey engine and boiler , steering gear , light and air spaces 66.45 , other machinery spaces 31.36 ,

And [12]
the said vessel has been duly ENROLLED at this PORT: having agreed to the description and measurement above specified,

## LICENSE

And William H. Crapo , the master, having sworn that he is a citizen of the United States, that this license shall not be used for any other vessel, or for any other employment than is herein specified, or in any trade or business whereby the revenue of the United States may be defrauded:

LICENSE is hereby granted for the said vessel to be employed in carrying on the COASTING AND FOREIGN TRADE for ONE YEAR from the date hereof, and no longer.

GIVEN under my hand and seal at the PORT of Detroit, Michigan
District of Michigan , this second day of May
in the year One Thousand Nine Hundred and Fifty-Five. (1955)

F. J. Heffner
Deputy Collector of Customs.

[1] Insert name and address of person by whom oath or affirmation was made.
[2] Substitute "affirmation" when necessary.
[3] Substitute "affirmed" when necessary.
[4] Insert the name and business address of the owner. If there are two or more owners, give the name and business address of one of the owners (managing owner, if one has been designated) and the proportion owned by him, followed by the names of the other owners and the proportions owned by each. If any owner is a corporation, give the corporate name followed by the words "a corporation organized under the laws of the State of " (inserting the appropriate State name).
[5] If the vessel is owned by the United States of America, delete "citizen of the United States and."
[6] Insert the name exactly as it appeared on the preceding document or, in the case of a first document, as it appeared on the application for official number. If the vessel has borne another name or a motorboat number immediately prior to documentation or redocumentation, give such name or number in parentheses preceded by the prefix "ex" immediately following the documented name.
[7] Write "said register," "said enrollment," or "said license." In the first document of a new vessel, give the name and title of the admeasurer.
[8] For a vessel having a steam (or an internal combustion) engine write "steam (or gas or oil) sidewheel," "steam (or gas or oil) sternwheel," "steam (or gas or oil) screw," as case may be.
[9] Insert the dimensions and tonnages exactly as they appear on the preceding document (or the certificate of admeasurement in case of a change in tonnage or upon issuance of the first document).
[10] Use the name of the person agreeing to the description and measurement and the capacity in which he acts (owner, master, or agent). In the first document, the name should be that of the person countersigning the certificate of admeasurement.
[11] On the first document of a new vessel, write in this blank "certificate of —, builder." On every document other than the first, recite whether the last former document was permanent or temporary, the kind, number, date, and place of issue of such former document, whether the original or a copy of the former document was surrendered, and the reason for issue of the new document.

16 - 21816-16 U. S. GOVERNMENT PRINTING OFFICE

P43 REVERSE

## PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1920, SEC. 30—46 U. S. C., TITLE 46, CHAPTER 24)

### MORTGAGE DESCRIPTION

(SUBSECTION (DC))

*Mortgagor* _____

*Mortgagee* _____

*Endorsed* _____, 19____, at _____ m.

*Total amount, $* _____

*Date of maturity* _____, 19____

_____

*Discharge amount, $* _____

_____

*Port of* _____

[SEAL]

_____

*Deputy Collector of Customs.*

### MORTGAGE DISCHARGE

(SUBSECTION (DE))

*Port of* _____

_____, 19____

*The sum of $* _____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded*

_____, 19____, at _____ m.

[SEAL]

_____

*Deputy Collector of Customs*

---

**Official No. 223376**

Customs Form 1370

**TREASURY DEPARTMENT**
**BUREAU OF CUSTOMS**

Permanent
(Permanent or Temporary)

**FRONTIER**

# Consolidated Enrollment and License

FOR THE

**COASTING AND FOREIGN TRADE**

No. 30

OF THE

steam screw

CALLED THE

JOHN W. BOARDMAN

OF

Detroit, Michigan

3838 gross, 2763 net,

ISSUED AT THE

Port of Detroit, Michigan

May 2, 19 55

WHERE SURRENDERED:

WHEN SURRENDERED:

WHY SURRENDERED:

_____

*Deputy Collector of Customs*

---


## PREFERRED MORTGAGE ENDORSEMENT

(MERCHANT MARINE ACT, 1920, SEC. 30—46 U. S. C., TITLE 46, CHAPTER 24)

### MORTGAGE DESCRIPTION

(SUBSECTION (DC))

*Mortgagor* _____

*Mortgagee* _____

*Endorsed* _____, 19____, at _____ m.

*Total amount, $* _____

*Date of maturity* _____, 19____

_____

*Discharge amount, $* _____

_____

*Port of* _____

[SEAL]

_____

*Deputy Collector of Customs.*

### MORTGAGE DISCHARGE

(SUBSECTION (DE))

*Port of* _____

_____, 19____

*The sum of $* _____ *has been paid on the above-described mortgage, the certificate of such discharge being filed in this office and recorded*

_____, 19____, at _____ m.

[SEAL]

_____

*Deputy Collector of Customs*